University of Alberta

The Sturgeon General Hospital Mental Health Services Crisis Intervention Program: A Program Evaluation using the PRECEDE-PROCEED (1991) Model

by

Wendy Sheryl Hill

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master in Nursing

Faculty of Nursing

Edmonton, Alberta

Fall, 1996

National Library of Canada
Acquisitions and Bibliographic Services Branch
395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale du Canada
Direction des acquisitions et des services bibliographiques
395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file *Votre référence*

Our file *Notre référence*

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-612-18353-X

Canada

University of Alberta

Library Release Form

Name of Author: Wendy Sheryl Hill

Title of Thesis: The Sturgeon General Hospital Mental Health Services Crisis Intervention Program: A Program Evaluation using the PRECEDE-PROCEED (1991) Model

Degree: Master of Nursing

Year this Degree Granted: 1996

Permission is hereby granted to the University of Alberta Library to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly, or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided, neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever without the author's prior written permission.

Wendy Sheryl Hill

Wendy Sheryl Hill
7 Eastbourne Close
St. Albert, Alberta T8N 5N5

Date: Sept 17, 1996

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance a thesis entitled "The Sturgeon General Hospital Mental Health Services Crisis Intervention Program: A Program Evaluation using the PRECEDE-PROCEED (1991) Model" submitted by Wendy Sheryl Hill in partial fulfillment of the requirements for the degree of Master of Nursing.

Dr. M. Wood
Supervisor

Dr. O. Yonge
Committee Member

Dr. L. Laing
Committee Member

Date: Sept 17, 1996

To my husband and life partner, Ron
and to my sons, Sean and Daniel

Abstract

The purpose of this descriptive evaluative study is to examine an existing mental health crisis intervention program using the framework of the PRECEDE-PROCEED health education model (Green, Kreuter, Deeds & Partridge, 1980; Green & Kreuter, 1991). The framework provides the structure within which mental health services are analyzed for impact, process and outcomes. This is accomplished by examining for relationships between aggregate demographics and program impact, process and outcomes as defined by the clients. Findings suggest that client perception of access, satisfaction and outcomes differ based on demographic characteristics. Program development and decisions must consider the potential effects of demographics on program structure and delivery. Limitations to the study are significant. Findings may be viewed as suggestive only and as opportunities for further investigation.

Acknowledgments

There are many people who provided support and guidance throughout the completion of this research project. I am grateful for the knowledgeable and patient contributions of my thesis committee members, Dr. M. Wood, Dr. O. Yonge and Dr. L. Laing.

The Faculty of Nursing is deeply appreciated for supporting the project through an internal research grant.

The assistance and guidance of Dr. H. Krahn, Department of Sociology, University of Alberta is gratefully acknowledged in the design of the study questionnaire.

The support and expert guidance received from Ms. J. Wright, Executive Director, The Support Network and her Crisis Team staff is also gratefully acknowledged.

The expertise and support of Ms. L. Cargill, who provided follow-up to individuals requiring assistance is deeply appreciated.

This research project would not have been possible without the foresight and support of the Sturgeon General Hospital Board of Trustees, 1993, who trusted and directed the author to develop, implement and evaluate a new concept in mental health programming. The continuance of the project over the past year would not have been possible without the support in principle and in kind of Capital Health, Region 10.

TABLE OF CONTENTS

CHAPTER

1. INTRODUCTION 1

A. Statement of the Problem 2

B. Purpose of the Study 3

C. The Conceptual Model 4

D. Significance of the Study 4

2. THE PRECEDE - PROCEED MODEL 6

A. Synopsis of the Model 6

B. Rationale for Selection 7

C. Application of PRECEDE-PROCEED Model 9

D. Epidemiological and Social Diagnosis 9

History 9
Demographics 10

E. Behavioral and Environmental Diagnosis 11

F. Educational and Organizational Diagnosis 13

Predisposing Factors 13
Enabling Factors 14
Reinforcing Factors 15

G. Administrative and Policy Diagnosis 16

Implementation 17

H. Process and Impact Evaluation 19

3. REVIEW OF RELATED LITERATURE 21

A. A Brief Overview of Related Mental Health Services Delivery Systems 21

Crisis Intervention Programs..... 21

Alternative Mental Health Services Programs..... 23
Economics and Service Delivery..... 23

B. Changing Paradigms..... 24

Client as Customer..... 24
Client Satisfaction..... 25

C. A Review of Variables that may be Determinants of Health..... 28

Age, Gender and Socioeconomic Status..... 28
Physiological and Psychological Indicators..... 31
Health Locus of Control..... 31

CHAPTER

4. DESIGN OF THE STUDY..... 33

A. The Research Questions..... 33

B. The Variables..... 35
The Independent Variables..... 35
The Dependent Variables Indices..... 36

C. The Process..... 36

Sample..... 37
Methods..... 39
Instrument..... 40

D. Reliability and Validity..... 44

Reliability..... 44
Validity..... 45
E. Data Collection..... 45

F. Ethical Considerations and Human Rights Protection..... 46
G. Data Analysis..... 48

5. PRESENTATION OF FINDINGS 50

A. The Demographic Profile 50

Age 51
Sex/Gender 52
Place of Residence 52
Education 53
Income 54
Severity of Illness-Client Defined (SOIC) 55
Severity of Illness-Provider Defined (SOIP) 57
Medication Profile 57

B The Next Level: A Description of Observed Inter-Dependencies Between Demographic Variables 58

Gender and Age 59
Examination of Gender and Place of Residence,Education, Income, SOIC and Medication Profile 60
Examination of Age and Place of Residence, Education, Income, SOIC and Medication Profile 63
Examination of SOIC and Medication Profiles 66

C. General Observations - An Overview 67

D. Impact Analysis 70

The Access Index 70
The Satisfaction Index 71
The Outcomes Index 72

E. Gender Effects 74

The Access Index 74
The Satisfaction Index 76
The Outcomes Index 77

F. Age Effects 80

The Access Index 80
The Satisfaction Index 84
The Outcomes Index 85

G. Education Effects 89

The Access Index 89
The Satisfaction Index 91
The Outcomes Index 93

H. Income Effects 96

The Access Index 96
The Satisfaction Index 99
The Outcomes Index 100

I. Place of Residence (Postal Code) Effects 103

The Access Index 103
The Satisfaction Index 106
The Outcomes Index 107

J. Severity of Illness - Client Defined (SOIC) 109

The Access Index 109
The Satisfaction Index 112
The Outcomes Index 113

K. Medication History Effects 116

The Access Index 116
The Satisfaction Index 117
The Outcomes Index 119

L. Summary of Findings 120

6. DISCUSSION OF FINDINGS AND CONCLUSION 122

A. The Research Questions Re-visited 122

Hypothesis #1 122
Hypothesis #2 124
Hypothesis #3 127

Statement 1 127
Statement 2 129
Statement 3 129
Statement 4 131
Statement 5 132

B. Process and Impact Evaluation: PRECEDE-PROCEED (1991) Model 134

Discussion of Process and Impact Evaluation in Relation to the Sturgeon General Hospital Mental Health Crisis Intervention Program 134

The Redefinition of the Health/Social Deficit 136

C. Limitations of the Study 139

D. Conclusion 140

REFERENCES 142

APPENDIX A: Description of Dependent Variables 151

APPENDIX B: Client Survey Questionnaire 153

APPENDIX C: Letter of Introduction 161

APPENDIX D: Consent Form 163

APPENDIX E: Subject Followup Letter 164

List of Tables

Table 1	Description of Age Aggregate of Respondents	51
Table 2	Description of Respondents Level of Education	54
Table 3	Distribution of Respondents Income Levels	55
Table 4	Distribution of Respondents Severity of Illness Client Defined (SOIC)	56
Table 5	A Description of the Respondents Gender by Age Group	59
Table 6	Gender by Education, Income & Place of Residence	62
Table 7	Gender by SOIC and Medication Profile	63
Table 8	Age by Education,Income, & Place of Residence	65
Table 9	Age by SOIC & Medication Profile	66
Table 10	Degree of Agreement of Respondents: Access Index	70
Table 11	Degree of Agreement of Respondents: Satisfaction Index	72
Table 12	Degree of Agreement of Respondents: Outcomes Index	72
Table 13	Results of Correlation Analyses: Demographic Variables, Access and Outcome Variables	73
Table 14	Description of the Effects of Gender on Access Index	75
Table 15	Description of the Effects of Gender on the Satisfaction Index	77
Table 16	Description of the Effects of Gender on the Outcomes Index	78
Table 17	Description of the Effects of Gender on the Impact Indices: Access, Satisfaction and Outcomes - Nominal Level Data	79
Table 18	The Impact of Age on General Agreement/Disagreement Regarding Access Index Variables	83
Table 19	The Impact of Age on General Agreement/Disagreement Regarding Satisfaction Index Variables	85

Table 20	The Impact of Age on General Agreement/Disagreement Regarding Outcomes Index Variables	88
Table 21	The Impact of Education on Percentage/Frequency of General Agreement/Disagreement: Access Index Variables	91
Table 22	The Impact of Education on Percentage/Frequency of General Agreement/Disagreement: Satisfaction Index Variables	93
Table 23	The Impact of Education on Percentage/Frequency of General Agreement/Disagreement: Outcomes Index Variables	95
Table 24	Percentage of Agreement/Disagreement Based on Annual Family Income Level (in thousands = K): Access Index Variables	98
Table 25	Percentage of Agreement/Disagreement Based on Annual Family Income Level: Satisfaction Index	99
Table 26	Percentage of Agreement/Disagreement Based on Annual Family Income Level: Outcomes Index	102
Table 27	The Impact of Place of Residence as Defined by Postal Code on Percentage of Agreement/Disagreement Regarding the Access Index	105
Table 28	The Impact of Place of Residence as Defined by Postal Code on Percentage of Agreement/Disagreement Regarding the Satisfaction Index	107
Table 29	The Impact of Place of Residence as Defined by Postal Code on Percentage of Agreement/Disagreement Regarding the Outcomes Index	109
Table 30	Reported SOIC and Level of Agreement/Disagreement in Percentages (Frequencies) on the Access Index	111
Table 31	Reported SOIC and Level of Agreement/Disagreement in Percentages (Frequencies) on the Satisfaction Index	113
Table 32	Reported SOIC and Level of Agreement/Disagreement in Percentages (Frequencies) on the Outcomes Index	115
Table 33	Percentages/Frequencies of Agreement/Disagreement on the Access Index Based on Medication History	117

Table 34 Percentages/Frequencies of Agreement/Disagreement on the Satisfaction Index Based on Medication History..... 118

Table 35 Percentages/Frequencies of Agreement/Disagreement on the Outcomes Index Based on Medication History..... 120

List of Figures

Figure 1	The PRECEDE-PROCEED Model (1991)	8
Figure 2	Distribution of Sexes in Sample as compared to St. Albert Population	52
Figure 3	Distribution of Urban/Rural Environments by Postal Code	53
Figure 4	Retrospective Chart Review Distribution of Relevant Medication Usage	58

CHAPTER 1

INTRODUCTION

The introduction of a community focused mental health services crisis intervention program located in an acute care community hospital is unique within mental health services in Alberta. The evolution of mental health service delivery in Alberta is well documented in the strategic planning initiatives and visioning documents produced by government agencies and committees over the past twenty years (Alberta Health, 1991; 1992; 1993, Canadian Mental Health Association, 1992). The current strategic direction is moving towards using the community setting more widely and intensely than in the past in Alberta. Financial, structural and human supports and the expertise required to enable this move into the community have not been well developed or coordinated to date. These factors are considered a major initiative in current regional planning of mental health programs (Alberta Health, 1993).

The Sturgeon General Hospital introduced a mental health services crisis intervention program on July 4, 1994, to address the lack of community mental health resources during non traditional business hours. The program developed and implemented is consistent with the direction recommended for planning of regional mental health services.

The careful selection and use of a credible and validated program planning model is the preferred method of establishing a new and controversial program. Often the field setting requires immediate rather than careful, considered action.

Statement of the Problem

The Sturgeon General Hospital introduced a mental health services crisis intervention program on July 4, 1994, to address the lack of community mental health resources during nontraditional business hours. The delivery of mental health crisis intervention services was determined to be best served through the Emergency Department for clients served by the hospital. This particular mental health services outpatient crisis intervention program is unique in that it operates out of a traditional community hospital. Further, it is delivered through a nontraditional management structure. This structure provides opportunities for nurses and colleagues to work in a collaborative model for the delivery of effective and efficient health services. The program conceptualization, philosophical developmental work, planning and implementation of the program was imagined, driven and coordinated by nurses. These nurses were interested in responding to client needs within the communities the hospital served with the goal of closing a gap in mental health services delivery that had been identified by the community.

Decisions regarding further continuance or enhancement of the program, and/or whether changes are needed to make the program more effective and efficient in service delivery require examination for client described outcomes. The client perspective examines whether there is a difference in the client's self described outcomes related to the new program.

Purpose of the Study

The purpose of this descriptive evaluative study is to examine the effects of the new Mental Health Services Crisis Intervention Program at the Sturgeon General Hospital. These effects will be looked at as a function of the evaluation process detailed in the PRECEDE-PROCEED health education model (Green et al., 1980; 1991). The evaluation of the Sturgeon General Hospital program within this framework provides the opportunity to analyze the provision of mental health services in terms of impact analysis and outcomes from the perspective of clients living in community settings and accessing services from their community hospital. Behavioral and environmental indicators that interact with health and health status have been identified in the literature as influencing the perceptions of individual clients regarding their experiences. These indicators are reflected in the demographic factors selected as the independent variables. These factors may in turn drive not only the development of the hypotheses to be tested, but may be considered as potential or actual predisposing, enabling and/or reinforcing factors that impact upon the dependent variables index - that of the client's experiences with the mental health services program. The opportunity is created to examine the client's impressions of their experience within the contexts of age, sex, education, income and socioeconomic status. The intent is to determine if there are similarities and/or differences within the population aggregates. The clients' experience is reflective of the intervention strategies taken, and the impact and outcomes for the client. The sustainability of the effects of the experience on the clients' future health and health status is dependent on the timeliness, accessibility and effectiveness impacts of the

intervention. This information is important to the PRECEDE-PROCEED framework and process loop. This process loop requires the reexamination of programming through the redefinition of the original issue, analysis, intervention and evaluation for value and relevance within the space and time continuum.

The Conceptual Model

The model chosen for the retrospective application to the Sturgeon General Hospital Mental Health Services Crisis Intervention Program is that described in 1980 by Green, Kreuter, Deeds & Partridge called PRECEDE. This model was further expanded in 1991 by Green and Kreuter to PROCEED. The model is described, the rationale for selection is explored and the context of the program for which the model is used is described in Chapter 2. The model provides the framework for the development of the review of the literature, which then supports the description of the research question and the hypotheses subsequently developed. These steps then provide the starting point for the development of the research purpose and method.

Significance of the Study

During times of decreasing resources and increasing health service requirements there is a concurrent need to be accountable for how those resources are utilized and how services are balanced with costs. Programs such as the one under evaluation are difficult to measure in terms of outcomes because mental health problems are not always amenable to quantifiable standards. Current and future funding decisions require that client outcomes be measurable and replicable. This study is one step towards attempting to quantify client self described outcomes for a particular outpatient based service that

will help drive current and future programming decisions. Notwithstanding, due to the nature of the program under evaluation, it is not suggested that the outcomes from this study are applicable to other populations or institutions.

CHAPTER 2

THE PRECEDE-PROCEED MODEL

Synopsis of the Model

Health education modeling (Green & Kreuter, 1991) is used in the analysis and identification of the health issues arising from an identified and documented social issue. The model is then used to describe the evolution of an appropriate intervention strategy. The intervention strategy is rooted in the belief that people implicitly and explicitly control health decision making for themselves. Further, the cumulative health status of individuals predicates the health status of the population. Impact analysis and outcomes measures that reflect the intervention strategy within the context of the concepts of personal sense of control and influence over self and health are valued. These measures may be used to validate the approach taken to reduce the health risks. Further, the opportunity exists to address the underlying social issue of mental health and support systems in the presence of early and brief intervention strategies. The described processes necessarily include an examination of what choices are available, the rationale for choice of intervention, and how the intervention and outcomes are related to the chosen health education model.

A social and health issue defined as access to timely and appropriate interventions for mental health related issues for people in the St. Albert area has been identified. The antecedents to the development of an intervention strategy will be thoroughly examined through the PRECEED-PROCEED model. This examination will include the review of

the history, social structures, underpinnings and demographics of the geographic area and within the context of the relevant literature.

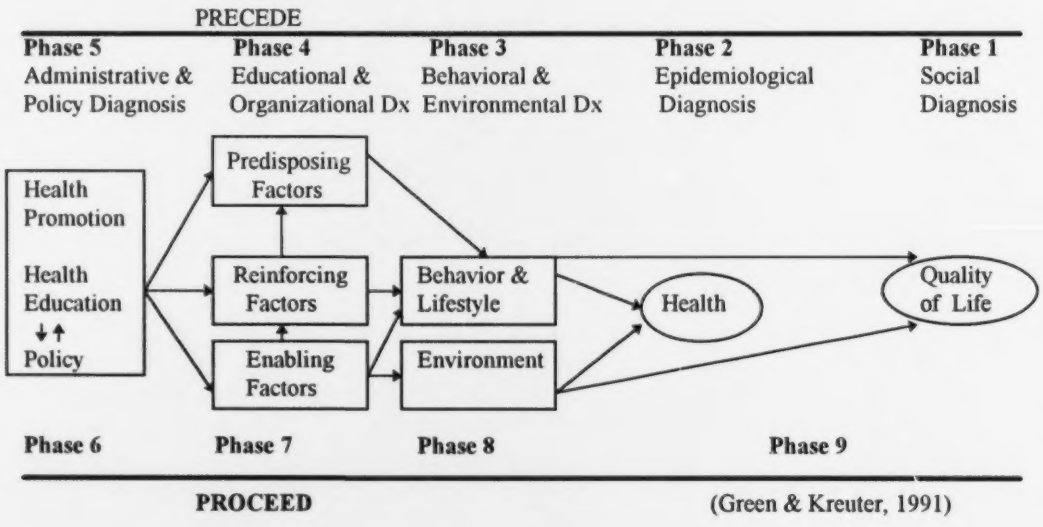
Rationale for Selection

The model chosen to lead the development of the evaluation of the intervention strategy is that described by Green, Kreuter, Deeds and Partridge (1980) as PRECEDE. A revised and expanded model was published in 1991 by Green and Kreuter under the acronym PROCEED. The PRECEDE - PROCEED model was developed to provide a methodical approach to the evaluation of health education planning that was sensitive enough to be valid in the many different settings in which health education occurs. The choice of PRECEDE - PROCEED as a model for this community based program is based on the following rationale:

- carefully planned programs, based on documented needs, are the basis for funding decision-making at the administrative level
- PRECEDE-PROCEED focuses on aggregates or populations, rather than on the individual. This is consistent with the way organizations will make future decisions regarding funded programming, yet is familiar enough in terminology to institutional-based decision-making to enable a comfortable shift in viewpoint from the individual to the aggregate
- PRECEDE-PROCEED supports the individual practitioner in the identification of groups and/or sub-groups of a population who are marginalized in terms of access or influence of predisposing, enabling and reinforcing factors

- the relationships described within the PRECEDE-PROCEED framework are those of reciprocity between the practitioner and the client aggregate rather than the traditional "provider as expert -- dependent client " relationship. The practitioner uses a unique skill set to facilitate the client aggregate in achieving positive and sustainable new behaviors. Continuing assessment identifies negative enabling and reinforcing factors and revises interventions to reflect the identified health needs/risks of the client group.
- the use of a program model at the outset means that the process of evaluation is based on a sound needs assessment, with achievable and measurable objectives upon which to base both impact analysis and outcome measures (Green et al., 1980; 1991). The PRECEDE-PROCEED model has been widely used in health services program evaluation over the past fifteen years and is considered valid and useful in the field (Selby, Riportella-Muller, Sorenson & Walters, 1989; Green, 1994; O'Neill & Pederson, 1994; O'Neill & Cardinal, 1994; McQueen, 1994).

Figure 1. The PRECEDE-PROCEED Model (1991)



(Green & Kreuter, 1991)

Application of the PRECEDE-PROCEED (1991) Model

Epidemiological and Social Diagnosis

History

The St. Albert area was originally settled by Metis as an agriculturally based mission under the direction and guidance of Fr. Lacombe in 1861 as the Big Lake Settlement on the Sturgeon River (Borgstede, 1973; Fitts, 1987; Tirrul-Jones, 1990). The migration of Francophones from Quebec and subsequent Western European immigrations in the late 1800's with intermarriage between the cultures established an essentially rural, culturally homogeneous and agriculturally based local economy.

The town of St. Albert was established in 1904 as a supply depot to the agricultural communities. The discovery of oil and gas reserves in 1947 began a fundamental change in the population of St. Albert. Between 1950 and 1977 the population increased from 1,110 to 28,000. The current population is approximately 45,000. The City of St. Albert has changed significantly in character, now supporting a large number of residents who work in Edmonton and live in St. Albert. Local business and economy is dependent less on the agricultural and energy industries and more on the needs of a suburban community. Cultural roots, beliefs and values are less evident in daily life in St. Albert.

The rural communities are more traditionally focused and less affected by the changes seen in St. Albert. The town of Morinville is more similar to St. Albert in demographics and population than to its surrounding neighbors. The majority of the population of the M.D. are descendants of the original settlers and have well established

social support networks. Newcomers to the area often find it difficult to gain entry to the old-timers group (Bushy, 1993).

Demographics

The demographic profiles of the City of St. Albert and the surrounding area are different and will be dealt with as two groups - urban and rural. All cited urban population demographics are drawn from the City of St. Albert Civic Census Report (1993) and Statistics Canada (1993). The City of St. Albert has a total population of 44,195. Males and females are equally represented in the population, respectively at 49.6% and 50.4%. Of the female population, 45% of the population represents women between the ages of 19 and 45 years of age. The community profile reflects predominantly Caucasian, middle class, dual income and dual parent families. Notwithstanding, there are people, mostly women, living in St. Albert who are single parents with limited financial and personal resources.

The rural portrait is somewhat different from the urban. Statistics Canada (1993) serves as the source of demographic information on this group as there is no local documentation available. The M.D. of Sturgeon is an essentially rural and agricultural setting, with both large, prosperous and small, poor farms and communities. There is also an established oil and gas industry in the M.D., with gas plants and oil wells in operation. A number of expensive acreage developments have been established near the City of St. Albert. There is a strong Francophone and Metis cultural base to the M.D. A Hutterite colony and the Alexander aboriginal reserve complete the mosaic of cultures, values and economic indicators for this diverse population.

The experience of isolation and a lack of accessible mental health services after normal business hours as a health issue has been identified for the community of St. Albert. People who require these mental health services comprise the selected aggregate. Epidemiological Diagnosis is based on the causes of isolation and potential mental health issues due to, in part, limited opportunities for ongoing support and interaction for community members. An epidemiological description of the aggregate and a review of related literature identifies a potential health problem or risk. The group at risk consists of those individuals who may have little or no personal or social support systems in place, due to personal or economic circumstances.

Behavioral and Environmental Diagnosis

The Board of Trustees of the Sturgeon General Hospital responded to an identified community need for mental health services outside of traditional business hours. As the only twenty-four hour health service in the St. Albert area, the Board felt it was their responsibility to explore further the provision of mental health services. The provision of funding for a pilot project in community focused mental health services was identified as a priority to address the mental health needs expressed by the population served by the Sturgeon General Hospital. This population included both the urban and rural environments. An extensive and thorough needs assessment was undertaken to identify just what the problems were and how these problems might be best addressed. The direction was supported by a community needs survey conducted by the City of St. Albert (1993) and the Chamber of Commerce (1992). In addition, personal anecdotes were provided by concerned constituents of the Hospital District 100. Finally, the

historical/statistical records of the hospital were reviewed regarding the volume and type of patients seen over the previous year with psychiatric and/or mental health needs.

Several themes regarding the provision and access to mental health services were identified from the information obtained from the range of sources cited. The core issues identified included:

- access to mental health services after 1600 h Monday to Friday and on weekends
- expectations from the community at large that the Emergency Department at the Sturgeon General Hospital should and could provide the mental health expertise required during these hours
- a perception that there were occasions when clients with mental health problems were admitted to hospital that could be managed effectively in the community if the appropriate supports and expertise were available
- the belief that it is possible to significantly reduce costs to the health care system by avoiding inappropriate inpatient costs as generated by acute psychiatric admissions
- the reduction in acute mental health or psychiatric beds had created an environment where clients in need of services were remaining in the community and the issues surrounding this would soon escalate.

The Behavioral and Environmental Diagnosis included the identification of the population aggregate who were experiencing mental health crisis issues that were not being adequately addressed within the community setting after normal business hours. Further, the expectation was established that the existing health services would take

action to support these individuals when they required this assistance, where it should occur and how much service could be expected by the community.

Educational and Organizational Diagnosis

The next step involved an extensive consultation process to identify the predisposing, enabling and reinforcing factors and was undertaken with the communities' major stakeholders. The function of the consultation was to determine the service gaps for mental health that the agencies perceived from their practice and experience with their clients. Interviews with the following agencies were undertaken:

- RCMP
- Alberta Mental Health Services
- Family and Social Services
- Child Welfare
- School Districts #3 and #6
- Sturgeon Health Unit

Predisposing Factors

Predisposing factors are described as those antecedent to the behaviors on which the health behavior is dependent. The rationale or motivation for the behavior is implicit in this description (Green et al., 1981). These are the behaviors learned through example or life experience that shape peoples' attitudes and beliefs towards the particular behavior under discussion. Predisposing factors for each potential mental health client include but are not exclusive to:

- diversity or homogeneity of cultural, ethnic and religious beliefs

- where the person lives and has lived in the past,
- their socioeconomic status both now and during their formative years
- what their current and historical living arrangements are and with whom
- their medical/psychiatric history
- attitudes, beliefs and values regarding decision-making and health locus of control.

The presence or absence of social networks accessible to each person and establishment in the community are critical predisposing factors in the ability to access guidance and assistance in managing one's day-to-day needs. The need for these supports is dependent on whether or not he/she operates from an internal or external locus of control regarding health and life decisions.

Predisposing factors are important to recognize and acknowledge in planning and decision-making for program planning even though they are not generally under the direct influence or control of the practitioner (Green & Kreuter, 1991). The determination of positive and negative predisposing factors may be different between and among members of this aggregate.

Enabling Factors

Enabling factors are described as those which are present before a behavior that allow for the bringing of an aspiration or dream to fruition. These include internal resources such as personal skills and external resources such as those found in the community (Green et al., 1980). Enabling factors for people in the St. Albert area identified include:

- educational level and relevant work/life experiences

- volunteer work, involvement in local activities, such as schools, co-ops
- the availability and access to other adult support persons in the community
- what his/her current living arrangements are and with whom
- previous successes with managing their problems
- geographic distances and access to transportation.

The enabling factors for selected sub-groups may again be positive or negative in nature. Those persons living on their own, with no transportation or adult support person, and limited income have negative enabling factors present. Persons with a supportive partner, other adult support, and/or financial security may have a more positive set of enabling factors. This dichotomy within the aggregate is an important consideration of which to be aware.

Reinforcing Factors

Reinforcing factors are those which continue to ensure the repetition of the behavior because of implicit or explicit reward in the case of a positive factor, and extinction of a negative or unhealthy behavior in the case of a negative factor (Green et al., 1980). Small successes often lead to larger ones. To change underlying beliefs and attitudes the creation of awareness, interest, trial, decision and adoption have been described as necessary to internalizing a change in behavior (Green et al., 1980). Reinforcing factors for the aggregate need to be tailored to realistic expectations based on enhancing the cited predisposing and enabling factors that are positive in nature. Particular attention needs to be paid to those people who require the development and reinforcement of skills in the domain of positive enabling and reinforcing factors. For this

aggregate, the reinforcing factors that may have the most effect on sustainable behavioral changes will be those of successes in managing their mental health problems in a positive and self-determined manner and being able to access resources at the right time and in the right place.

Administrative and Policy Diagnosis

Administrative Diagnosis is the process by which programming is analyzed and evaluated on priorities, consistency with organizational mandate and fittingness with current programming. Consistency must also be achieved with the organizational culture and external support gained for the programming principles, philosophy and objectives. Unless there is organizational support at all levels, the practitioner will have a difficult time in implementing the new program. Further, if the program is not viewed as important by community resources upon which the program is dependent for client referrals, the program will have a very difficult time sustaining momentum. Internal and external political influences are key to success of failure of the program (Neufeld & Strang, 1992; Smith, 1990).

The need for examination of the issue of mental health crisis intervention services came from the hospital organization itself in response to concerns raised by clients. The Administrative Diagnosis recognizes a social and health issue that has been clearly identified and requires organizational action. The administrative mandate is to find a cost-effective and client-focused method of ensuring that mental health clients have the access they feel they need to information and services on a twenty-four hour basis. The parameters for providing mental health services are established through using existing

resources within the Social Work and Discharge Services and Emergency department of the hospital in addition to externally contracted crisis intervention services. A referral system for follow-up by internal or community agencies takes the process further. The organizational costs are containable and related to the establishment of a new contracted service, advertising and promotion and FAX machine to forward referrals. Referral costs remain to be explored and quantified with sister agencies.

Implementation

The greatest perceived obstacle to developing a mental health services program was the absence of a psychiatrist or other physician as the leader or director of the program development and implementation. It was argued that program development could not proceed unless this critical element was addressed. After much debate, the decision to form a multidisciplinary Program Planning and Implementation Management Committee was made. This committee included representation from the central Alberta Mental Health Services office in Edmonton, a private consultant and psychiatrists from Alberta Hospital, which satisfied these concerns.

Representation from the previously cited agencies was sought in the development of the program's goals and objectives as developed by the Committee and included hospital staff and medical staff as core members. Subsequent meetings were held to inform the other more peripheral community agencies and area MLA's of the planning for mental health services. The Committee further established processes to ensure the continued involvement of these stakeholders in decision-making regarding the provision of services. The final job of the committee was to develop a Request For Proposal for

the provision of services on a contract basis and to award the contract. This was completed in May 1994 with a start date for the program of July 1994.

The initial program proposal with associated costs was submitted to the Board for approval in the autumn of 1993. The Board approved the program in principle and committed funding for the pilot project for one year from their discretionary revenues. A commitment was made to the Board of Trustees to providing a credible and valid evaluation of the outcomes of the program.

The basic framework of the program implemented as a pilot project on July 4, 1994, included but was not exclusive to:

- an on-call Mental Health Therapist (R.N., R.P.N., Social Worker, Psychologist with additional credentials) between 1600h and 0800h Monday to Friday, 24 hours a day on weekends and holidays, contracted through The Support Network
- access through the Emergency Department of the Sturgeon Hospital
- access to psychiatrist on call and acute psychiatric beds if necessary through the City of Edmonton hospitals on call rota
- on site consultation with Sturgeon General Hospital medical and nursing staff for client and staff support
- full mental health assessment for each client based on The Support Network client assessment form derived from the DSM-IV
- day to day operational decisions to be made by the Program Manager, Sturgeon General Hospital and the Executive Director, The Support Network

- policy and directional decisions to be made by the Sturgeon General Hospital Program Management Committee which had the same composition of members as the Planning and Implementation Committee previously cited.

The program is delivered through the Emergency Department. People presenting with a primary psychosocial problem are seen by the mental health therapist, who conducts a thorough mental health assessment. The therapist then confers with the Casualty Officer, and the patient is either immediately referred to the psychiatrist on call in the region or is discharged home. Followup is done the next business day by the social worker at the Sturgeon or an appropriate community agency. Referral is dependent on the presenting problem and the age of the client. Examples of the types of problems people present with include peer and parent relationships for younger clients, and midlife issues and despondency over job losses in the middle aged clients. Older clients often present with problems related to social isolation.

Process and Impact Evaluation

A program evaluation is by definition a comparison of population outcomes before and after of the introduction of the program. Evaluation is dependent upon there being defined and measurable objectives for the program before implementation that drive the program. The program must be truly implemented, and the evaluation must reflect the actual program implemented (Dobson, 1980; Basch, Sliepcevich, Duncan & Kolbe, 1985). A number of designs are used for program evaluation. These include longitudinal historical approaches; inventories of utilization of program services; comparative analysis of outcomes with other agencies; and true research designs

incorporating experimental, quasi-experimental and evaluation research methods (Green, Kreuter et al., 1981; Brink & Wood, 1989; Siderovski & Siderovski, 1992).

The problems described at the Sturgeon General Hospital of timely access, community expectations, appropriateness of setting for services and costs of service delivery as well as the concept of the nurse as primary resource are derived from the historical, economic and service delivery contexts. There are codependent relationships between the development of alternative methods of mental health service delivery and the economic implications of out of hospital mental health service delivery models. This suggests an important linkage between the two concepts. This linkage needs further discussion but must be examined as embedded in the client's perception of whether the client's self determined goals have been met. The factors of cost and measurable outcomes or goals met are considered critical elements in health care most notably at the administrative level where programming decisions are made.

This study addresses both the elements of impact analysis and outcome evaluation. The literature cited has led to the development of the idea that there are many variables that can impact the perception of impact and outcomes by the individual and collective client base. Personal attributes of the clients such as age, sex, and whether they live in a rural or urban environment within the context of personal supports seem to be important. Socioeconomic status as measured by education and income levels may also be important. It is the effect of these variables that will be examined within the context of the clients' experiences with the Crisis Intervention Program.

CHAPTER 3

REVIEW OF RELATED LITERATURE

A Brief Overview of Related Mental Health Services Delivery Systems

Crisis Intervention Programs

The review of the literature regarding crisis intervention programming leads to one major observation - there does not seem to be a consistent operational definition for the term "crisis intervention". In addition, each crisis intervention program has been developed within the context of the needs of the specific community, its demographics and preexisting support services. The development of crisis intervention programs is dependent on the mandate of the organization developing the program. These programs focus for the most part on defined psychiatric diagnosis in emergencies or crises (Chiu & Primeau, 1991; Andreoli, Muelbach, Gognalons, Abensur, Grimm & Frances, 1992; Brooks, Sanguineti & Schwarz, 1992; Pulakos, 1993; Holdsworth & Guy, 1994). This is problematic as several of the descriptive and research articles use the terminology in different contexts.

There are many studies and descriptive reports of different types of crisis intervention programs and settings (Chiu & Primeau, 1991; Cohen & Tsemberis, 1992; Andereoli, Muehlebach, Gognolons, Abensur, Grimm & Frances, 1992; Brooks, Sanguinetti & Schwartz, 1992; Holdsworth & Guy, 1994; Pinkerton & Rockwell, 1994; Slive, MacLaurin, Oakander & Amundsen, 1995). As an example, the evaluation of one crisis intervention program in mental health services that focuses on the client's perceptions does provide insight into the effectiveness of such programs. A pilot study at

a community mental health center in Geneva (Andreoli et al., 1992) looked at the short (one year) and longer (two year) outcomes for the client following treatment. Although called a community mental health center, it is clear from the description in the paper that this is a free standing intensive inpatient and outpatient psychiatric services facility. The treatment described is based on a therapeutic modality referred to as CCI (crisis intervention) which involves both brief initial intervention and continuing contact and therapy with the client over a mean six week period. Demographics were used as the baseline predictors. The instruments used included the DSM-III-R (sic) diagnostic tool, the Adherence Index (five-level scale adherence of treatment to the requirements of the crisis intervention technique) and process measures derived from a number of scales from the Pronostic Index for Psychotherapy. The outcomes reported indicated that subjects improved in the areas of global change, symptom severity, tolerance of symptoms and family adjustment at one and two years. Subjects experienced less improvement in the area of adjustment and social functioning at one year. Long term improvement in all areas was more prominent in clients experiencing depressive diagnoses. Sociodemographics were correlated but not a factor in the relationship between process measures and CCI long term outcomes. As a pilot study, the findings are not conclusive. Notwithstanding, there is a need to examine the modality of crisis intervention within the context of impact on the client and outcomes for the client and the health services system.

Alternative Mental Health Services Programming

The literature on alternative programming essentially addresses partial hospitalization methodology. The move into community based programs is less well documented and is perhaps in a transitional state. Client satisfaction has been reported as an important determinant to the expansion of service programs into the community setting (Carey & Siebert, 1993; Flynn, Lapointe, Wolfensberger & Thomas, 1991; Matulich & Finn, 1989; Cassileth, Walsh, Blake & Greenspan, 1987; Drummond, Stoddardt & Torrance, 1986; Friedman, 1985; Chan & Juzwishin, 1984). The perception by the client that an improved outcome has been obtained as a result of the variety of programs offered in mental health services is less well described and documented (Neal, 1986; Friedman, 1985; Weil, 1984; Stein & Test, 1980; Weisbrod, Test & Stein, 1980).

Economics and Health Service Delivery

The operant historical assumption that global economics and health service provision are inextricably linked to one another over time and distance is well supported in Canada and evidenced by the development of health care funding mechanisms at both the Federal and Provincial levels (Botz & Keeler, 1989; Botz, 1991; Jacobs, Hall, Lave & Glendining, 1992; Jacobs & McPherson, 1993; Jacobs & Hall, 1994). The relationships between these constructs when taken into the client domain could be expected to have professional, economic and client implications as models for mental health service delivery mature and expand beyond the envelope within which they currently exist in North America. The operating frameworks developed for the delivery of mental health services might be expected to change as a result of the economic and

political environments. The Alberta experience in health care restructuring over the past eighteen months is especially germane to the close examination of alternative, cost effective, community focused operating frameworks.

The literature suggests that the movement toward outpatient and community based programs is well established for reasons of cost containment and cost avoidance as well as client and family satisfaction (Keisler, 1982; Fenton, 1979; Herz, 1979; Endicott, 1978; Pasaminick 1967 as cited in Sharfstein, 1985; Stein & Test, 1980). References regarding alternative programming cite increased client satisfaction and productivity as goals, as well as reduced utilization of inpatient psychiatric facilities (Kelly & Beaven, 1991; Neal, 1986; Arce and Vergare, 1985; Friedman, 1985; Pang, 1985; Sharfstein, 1985; Weil, 1984; Keisler, 1982; Stein & Test, 1980; Weisbrod, Test & Stein, 1980).

Changing Paradigms

Client as Customer

The majority of the literature focuses on the traditional and perhaps paternalistic outlook of health care and its service providers in providing "care for" rather than "service to" clients in the realm of making health decisions. The distinction between these two paradigms is significant. The attitude of "caring for" suggests and creates a dependent relationship with the service provider in the expert role. The concept of "service to" suggests a more equal partnership in which the client has the authority to define the parameters within which the service is provided. The client also defines his/her own needs to which the system should respond. It follows that alternative mental health service programs should be responsive to and evaluated from the perspective of client

perceptions of value as well as economic sustainability in determining program success or failure.

The shift in programming towards clients and their self determined needs has only been described briefly in the more recent literature (Drucker, 1994; Alberta Health, 1992, 1993; Canadian Mental Health Association, 1992; Jimerson, 1986). Notwithstanding, the specific examination of clients' and their perceptions as germane has not been described well and requires more detailed examination.

Client Satisfaction

Health care administrators face many issues in the operation of health care facilities. One challenge in the institutional setting is that of balancing the quality and appropriateness of patient care provided by the institution's employees and privileged physicians with patients' expectations for health care services. Appointed government investigative bodies such as the Alberta Health Care Facilities Review Board confirms the reality of disaffection and difficulties between patients and facilities.

The majority of research studies dealing with patients' perceptions of care received deal with patient satisfaction in a variety of clinical settings (Bramadat & Driedger, 1993; McMillan, Younger & DeWine, 1986; Doering, 1983; Goldsmith, 1983; Clemenhagen & Champagne, 1982; Linn, Linn & Stein, 1982). The other focus is on patient satisfaction as part of a quality assurance program (Casarreal, Mills & Plant, 1986; Lemke, 1987; McMillan, Davis & Hobbs, 1989; Conbere, McGovern, Kochever & Widfeldt, 1992; Gerber, Calvert & Smylie, 1992; Megivern, Hann & Jones, 1992). Reports of research tend to deal exclusively with the perceptions of patients in the

hospital setting and the receipt of hospital services. The focus of these studies is on proving patient satisfaction with services, which is explicitly stated in survey titles such as "a patient satisfaction survey...analyzing patient satisfaction...client satisfaction measurement...". The dissatisfied patient and the underlying reasons for her/his dissatisfaction are not the focus of the studies reported (Clemenhagen & Champagne, 1982; Linn, Linn & Stein, 1982; Doering, 1983; Goldsmith, 1983; McMillan, Younger & DeWine, 1986; Abramowitz, Cote & Berry, 1987; Elbeck, 1987; Lemke, 1987; McMillan, 1987; Davis & Hobbs, 1989). In other words, the target of the research is the goals of the organization and not the patient experience. The patient becomes the vehicle by which the organization judges its success.

The potential for unintended coercion in these studies is a concern. Some researchers do not give an adequate indication of whether patient subjects were in a dependent relationship with the hospital at the time of the surveys. The degree of satisfaction reported on the surveys by patients may be related to how vulnerable a population they form at the time of the survey. Many of the studies do not acknowledge at what point in time the satisfaction surveys occurred (Clemenhagen & Champagne, 1982; Linn, Linn & Stein, 1982; Doering, 1983; Goldsmith, 1983; Casarreal, Mills & Plant, 1986; McMillan, Younger & DeWine, 1986).

A final observation has to do with the seemingly broad and perhaps confounding use of the word "satisfaction". Multiple factors are examined in terms of the range of services provided. The selection of elements of care that are hotel services in nature as opposed to health care services are often described as satisfaction or are used to measure

satisfaction (McMillan, Younger & DeWine, 1986; Lemke, 1987; McMillan, 1987; Davis & Hobbs, 1989; Conbere, McGovern, Kochever & Widfeldt, 1992; Gerber, Calvert & Smylie, 1992; Megivern, Hann & Jones, 1992). Bramadat & Driedger (1993) assert that the core difficulty in developing reliable and valid patient satisfaction surveys lies in the lack of a theoretical construct of satisfaction. This point is germane in that the discussion of satisfaction as an indicator of organizational success is dependent on the view of patients who are the consumers of hospital health care services. This view then needs further examination to provide a framework for the definition of the term "satisfaction".

A multiplicity of disciplinary interest including but not exclusive to nursing, medicine, sociology, administration and hospital business are well represented in the literature on patient satisfaction. This breadth of interest in determining the nature and patterns of client satisfaction or dissatisfaction regarding health care services provided in hospitals is well grounded. It is clear that patient satisfaction with care received is important to both administration and practice disciplines.

The investigator has extensive experience in the management of patient care related complaints at a community general hospital. From these experiences, it appears that themes of motivation may exist behind the complaints investigated that reflect a sense of patient/family perceptions of inequity and unfairness on behalf of the complainant. This perception has not been directly attributed nor explored with complainants in the cited literature. Equity and fairness are elements beginning to be discussed in selections of the most recent literature regarding concepts of social justice and social responsibility (Cameron, 1991; Davis, 1991; Gottschalk, 1991; Sultz, 1991;

Curtin, 1992a, 1992b; Turner, 1992). Motivation to register a concern may be related to these concepts but is unexplored to date.

There is no question that the field of inquiry into patient satisfaction and/or dissatisfaction is problematic. That the patient who is unhappy with care received is not the focus of these studies is important. Negative case individuals can be very influential in the community at large and are a population that deserves further examination.

A Review of Variables that may be Determinants of Health

The health of individual members can be described as an essential and core indicator of the health of the general population (Glazer, 1988; Rose, 1990; Rodrigues-Trias, 1992; Dyches & Rushing, 1993). The ability of people to effectively influence the overall health of themselves and their families may also be negatively influenced when mental health issues are not well addressed or managed.

An interesting portrait emerges from examining the breadth and focus of literature on variables affecting and descriptors of health. Much of the literature focuses on women's health as opposed to general population health.

Age, Gender and Socioeconomic Status

There are themes evident in the development of both descriptive and research articles in health. First, there is an increasing awareness that the focus of women's health needs to broaden beyond reproductive issues (Wood, 1989; Rose, 1990; Rosen, 1990; Boeke, 1991; Bushy, 1993; Hartweg, 1993). The changing social paradigm in which women exist has created significant stressors and role confusion for both women and men. Typically, women have assumed additional roles and responsibilities over and

above the traditional one of nurturance. Equality and equity for women are not synonymous. These concepts are not reflected in the way in which women have been viewed in health, let alone within the economic and business environments (Rodriguez-Trias, 1992; Bushy, 1993; Dyches & Rushing, 1993). The relationship between these factors and personal well being needs clear description. For example, are men and women's beliefs and attitudes about personal well being affected by their gender, age, income level or level of education?

Age has an effect on how people view their health and health care needs. Older people are more aware of what their needs for longer term health care services are than are younger people (Eakin, 1987; Roos, Shapiro & Roos, 1987; Dimond, 1993). The way that people self rate their health status in relationship to positive health practices is of interest to this discussion. Canada's Health Promotion Survey was a telephone survey conducted in 1985 by Statistics Canada. It was a survey of noninstitutionalized randomly selected Canadians who were asked a range of questions. There have been several reports published based on the results of that survey. One example is The Active Health Report on Fitness, Nutrition and Safety (1989). The report identifies that the social norms in Canada have changed over time to value more highly physical fitness, good nutrition and personal safety than in the past. Further, there is an age effect on both the valuation of these variables, but also on the meaningfulness (self-rated) of them. For example, people 65 years of age and older are less likely due to functional physical changes to exercise. However, of those who are able to exercise regularly, they are more active than younger counterparts and more likely to self rate themselves as fit. Risktaking

behavior decreases with advancing age, with younger people more likely to skip meals, drink and drive and not use seatbelts (Statistics Canada, 1989). The use of drugs shows a similar pattern in The Active Health Report on Alcohol, Tobacco and Marijuana (1989). Older people are less likely to drink, although the likelihood to drink heavily is more prevalent in men than women. A similar picture appears with smoking behavior, with younger people more likely to smoke and smoke more heavily than older people. Income level is an important variable in this group of behaviors with heavy drinking being most frequent amongst middle and upper income men and tobacco use highest among the very poor and wealthy. The use of other drugs such as marijuana was age related to younger people, yet appeared similar across all income groups (Statistics Canada, 1989).

Socioeconomic status has been well researched as a determinant of health. It is generally accepted common knowledge that poorer and marginalized people have poorer health status on an individual and collective basis (Barer, Manga, Shillington & Siegel, 1982; Manga, 1987; Statistics Canada, 1993; Bowdler, 1993; Martin & Henry, 1993; Badgley, 1994; Labonte, 1994). Considering this literature, socioeconomic status may be an important factor in the use of mental health services at the Sturgeon and on the clients' experience with a mental health issue.

Age, gender and socioeconomic status affect peoples' perceptions of health and healthy behavior in Canada on a demographic basis. This suggests that all of these factors may influence perceptions of other health indicators.

Physiological and Psychological Indicators

Several sources cited depression, anxiety, role confusion and dissonance as key negative influences on women's health status (Kay, Butter, Chang & Houlihan, 1988; Wood, 1989; Bushy, 1993). Indicators of these negative influences include the increasing incidence and prevalence of coronary artery disease and psychiatric disorders among women (Wood, 1989; Rosen, 1990).

A question that may be raised is whether women who experience a sense of reduced control over their lives may be at greater risk of developing physical and psychological health problems. This tendency may be reflected in the way women view themselves and their sense of personal well being. The question remains of whether these findings are limited to the female gender or whether they are more universal.

Health Locus of Control

A second theme evident is the exploration of the notion that women are fundamentally different from men in their view of self and of health, and that this difference requires research based description. Schank & Lawrence (1992) report that health promotion and maintenance behaviors are linked to health internal locus of control. They conducted a study examining this concept in two groups of young women, one group of nursing students and one of non nursing students. Interestingly, the results of their study indicated a significant difference between groups regarding health promoting behaviors. These differences were unrelated to the locus of control and more related to the choice of career path for nursing students. Underlying reasons for the differences are acknowledged as areas for further study.

Locus of control has also been examined along with other behavioral outcome indicators in a quasiexperimental study that evaluated a health promotion program in a community health centre in Ottawa (McDowell, Black & Collishaw, 1988). The Healthstyles program provided information and promoted healthy behaviors and positive coping skills. Most importantly, the program focused on mutual assistance strategies and strong social networks for the participants and compared their subsequent behaviors to a matched control group over an eighteen month period. Significantly greater improvements in the experimental group were found in the dimensions of health locus of control, as well as smoking, exercise, weight, nutrition and stress levels at eighteen months post intervention. The high proportion of women in the study leads one to speculate that the intervention of health promotion positively affected the decision making skills of the experimental group regarding health practices. Notwithstanding, the results reported on health locus of control are not conclusive. The baseline scores were higher in the sample than in the reference data cited, possibly reflecting the voluntary nature of the sampling procedures.

Health locus of control appears to be an interesting concept regarding women and women's health. Although not yet substantiated, there may be a relationship between health locus of control and women's decision making regarding health matters for themselves that requires further exploration. The question of whether women are different from men in their perceptions of self and health remains unanswered. The intent is to gain an understanding of the perceptions of both men and women living in the St. Albert area regarding self and mental health issues.

CHAPTER 4

DESIGN OF THE STUDY

The research design is descriptive evaluative and focuses on the measurement of impact and outcomes as described by the client and related to age, sex, severity of illness, place of residence, income and education levels. Impact and outcomes will be described within the contexts of accessibility to acute crisis as well as community mental health services, satisfaction with the services received, and short and longer term outcomes. Such outcomes include avoidance of inpatient hospitalization for a period of at least eight weeks following the client's initial contact with the Sturgeon General Hospital.

The Research Questions

The use of the demographics of the population being served by the mental health services program at the Sturgeon General Hospital as the context within which each client experiences his/her mental health crisis led to the development of the research questions. The questions to be answered by this study were as follows:

1. What is the impact of the Mental Health Services Crisis Intervention Program on people who use the services?
2. What is the relationship between severity of illness, age, sex, education and income (SES) on the way people describe their experiences with the Mental Health Services Crisis Intervention Program?

From these questions, the following hypotheses emerged:

1. People who are serviced by the Mental Health Crisis Intervention Program will describe a positive self impact in terms of accessibility and satisfaction with services

received. Process and outcomes related to this hypothesis will be supported or countered as enabling and/or reinforcing factors.

2. People will report both short term and longer term outcomes in which they are more self reliant, more likely to be receiving on-going care in the community and less likely to require inpatient hospitalization for their mental health needs. Reported outcomes reflect the sustainability of the program in terms of reinforcing factors.
3. Internal and external forces, such as gender, personal attributes, education and financial resources will affect the way people describe the impact and/or outcomes of the intervention they received through the Mental Health Crisis Intervention Program. These forces are directly related to the predisposing, enabling and reinforcing factors put forward in the PRECEDE-PROCEED model and cited earlier in the paper.

Based on the literature, the epidemiological and social diagnoses, the educational and behavioral diagnoses, and the administrative and policy diagnosis the third hypothesis was expanded further:

a. women will report higher scores in the areas of process and outcomes than will men.
b. there will be more women than men represented in the sample.
c. age will not be a determinant force in access, satisfaction or outcomes.
d. people living in rural areas will report less satisfaction with access, more satisfaction with the crisis intervention services and less success in short and longer term outcomes.

e. people with lower levels of socioeconomic status (as measured by income and level of education) will be less satisfied with access, be more satisfied with the services received and report less success in short and longer term outcomes.

The Variables

The predisposing, enabling and reinforcing factors were considered key determinants of the client's perceptions regarding their experience with the Mental Health Program. These factors are reflected in the cited demographics and were chosen for this study as the independent variables. The client's perceptions of his/her experience in terms of process and outcomes are affected by the independent variables and have been defined as the dependent variables for this study.

The Independent Variables

Based on the previous discussion, there are seven independent variables selected which impact the clients' experience and chosen for this study:

- severity of illness - clients were asked to rate "how bad" they were feeling when they accessed the mental health services program (scale 1-5, with 1 as minor and 5 as major). Provider assessment data was collected on the retrospective chart review regarding the level of care required (1-5) and relevant medication data. Emergency Department charts all have this data recorded by the receiving nurse.
- presence/absence of relevant medication usage - based on cited retrospective chart review
- age - subjects recorded their year of birth
- sex - subjects chose male of female

- place of residence - subjects recorded the first three letters of their postal code to flag urban versus rural clients
- education - subjects chose from a grouped response set
- income - subjects chose from a grouped response set.

The Dependent Variables Indices

The global dependent variable is the client's experience. Because there are subsets of the variable describing different aspects of the client's experience, these are organized into three indices as follows:

- Access Index - accessibility of services
- Satisfaction Index - satisfaction with services received
- Outcomes Index - immediate outcomes (reported connection or re-connection with community agencies) and longer-term outcomes (reported avoidance of hospitalization for eight weeks after the intervention).

The questionnaire was designed to elicit data for each of these dependent variables which comprise the indices. The questions, their relationships to the dependent variables and the questionnaire are discussed further under the instrument.

The Process

The group of clients studied were those who had used the new program at the Hospital since its inception in July 1994. A mailout survey was be conducted using a standardized questionnaire. Design elements were quantitative in nature in that the client's described experiences were examined, sorted and categorized through the use of a rating scale to determine the effect of the introduction of the Mental Health Services

Program at the Sturgeon General Hospital. The variables on which this experience are examined are the independent variables previously described. Client maintenance in the community was examined to determine if the client's perceptions and the health care systems goals of hospitalization avoidance are congruent. The study group represented those clients who have used the new program after July 4, 1994.

Sample

Due to the small size of the total available population of clients that have used the program during its first year of operation, it was necessary to use all available clients as subjects who met the inclusion criteria. The target population was defined as adult persons presenting to the Sturgeon General Hospital Emergency Department with mental health services needs. Such individuals were expected to be at least age eighteen, male or female, able to provide informed consent, understand and write in English, and have access to a telephone at home. Individual clients were sorted and excluded from the study using the hospital record data base if they had a primary or secondary diagnosis of cognitive impairment, organic brain syndromes, developmental impairment, severe neurological impairment or brain injury.

On the mailout date of October 16, 1995, there had been 304 client visits to the mental health crisis intervention program that were within the eight week follow-up criterion. Of these visits, 92 (30.5%) were under the age of 18 years; 56 (18.4%) were repeat clients and could only be surveyed once and six (1.9%) did not meet the remaining inclusion criteria for sampling.

The remaining 149 people received a mailout survey. The initial survey was sent out on October 16, 1995. A followup letter was mailed out to ninety-four who had not responded on November 16, 1995. Seventy-nine nonrespondents received a second questionnaire sent out on December 2, 1995. During the course of the data collection the writer found that:

- 30 people had moved away (20%)
- 6 refused directly by telephone (4%)
- 5 were referred for further mental health follow-up (5%)
- 34 responded (23%)
- 76 did not respond, even with two follow-ups (51%)
- 3 confirmed died (2%).

Determination of optimal sample size based on the requirements of the research questions was undertaken using the parameters for power as described by Polit and Sherman, 1990. To determine sample size, the following parameters were selected: power of 0.8, alpha at .05, and effect size large at 0.5 (Cohen, 1988; Polit & Sherman, 1990). The required sample size that satisfies the majority of statistical analysis methods is approximately 52 subjects.

As a mailout survey, it was anticipated that the response rate could be problematic. The hospital's past experience has been a response rate of 28-30% on general satisfaction surveys that are mailed out every six months. Power as a function of the sampling procedure is problematic for this study, notwithstanding the significant cited attempts made to achieve a higher response rate.

A review of hospital emergency department records of clients presenting and being discharged with mental health or psychiatric diagnoses between July 4, 1994, and the study start date in October 1995 was undertaken. Two pieces of data were collected from these records; medication history and emergency coding ratings for severity of illness as reflected by nursing workload measurements. The records were accessed through the emergency coding and abstracting sections of the Health Records Department and through the Program Manager of the Mental Health Crisis Intervention Program.

Methods

The method chosen reflects the intent of the investigator to answer the question of how the introduction of the Mental Health Services Crisis Intervention Program has had an impact on clients served by the Sturgeon General Hospital. The impact of the program in terms of self described outcomes is of interest as is the presence or absence of a relationship between age, sex, severity of illness, place of residence and socioeconomic status with the outcomes these clients describe for themselves.

The choice of method for the data collection was carefully considered. Although the use of face to face interviews would be preferred as the method of data collection, the costs of doing so for such a large sample were prohibitive. The use of a self administered questionnaire through mailout with this group of clients was selected, despite the potential risk of not achieving an acceptable response rate. The use of a telephone survey was field tested with a small group of clients who used the Sturgeon before the introduction of the new mental health program. Problems identified as a result

of this action included but were not exclusive to: thinking the investigator was a salesperson and hanging up, reluctance to discuss personal affairs over the phone with someone the respondent didn't know, distrust that the investigator was who she presented herself as, and expecting the interviewer to resolve the client's problems. Several (4 out of 9) respondents volunteered and two additional respondents that were directly questioned indicated that they would be happy to answer the questions if they were mailed out to them in a questionnaire. The use of the written questionnaire raised the potential for an intervening variable of severity of illness in conjunction with medication effects which may affect mental health clients' ability to concentrate and shorten the attention span when reading the written word. A subsequent pilot study undertaken to test for the reliability and validity of the instrument was unsuccessful. Of thirty clients drawn randomly from The Support Network client data base and surveyed on a test/retest procedure, only two responded to both parts of the study. Of the remaining twenty-eight followed up through telephone contact, only seven were still at the same phone number, and of these seven, four were unable or unwilling to participate and three did not return the writer's calls.

Instrument

The questionnaire (Appendix B) was reviewed for content and face validity by an expert panel - four mental health practitioners with extensive field experience in mental health crisis intervention. The field experts were very helpful in redesigning the questions and making sure they would be clear and understandable to the clients. The vernacular was used wherever possible, and the use of provider phrases kept to a minimum as a

result. The questionnaire was also reviewed for design issues by a professor in the Department of Sociology, University of Alberta.

The conduct of a survey requires the careful and methodical development of a valid and reliable instrument with which to collect the data. The crafting of the questions to ensure that the question and the answer are congruent and will provide the answer sought is critical to success in survey designs (Frey, 1989).

The agency providing the contracted services of crisis intervention to the Hospital has developed and implemented a set of evaluation tools in collaboration with Alberta Mental Health Services and Alberta Health in the Fall of 1993. The set includes a Client Evaluation Tool (The Support Network, 1993). The instrument was field tested to a limited extent for reliability and validity in that the instrument has been used to evaluate part of the Mobile (sic Mental Health) Crisis Intervention Service for Edmonton for the past year. To date, however, the data has only been presented as raw data. No statistical analysis has been conducted from the data obtained through the surveys. There is no question that this omission has serious implications for the reliability and validity of the tool and further for the data collection and subsequent data analysis for this study (Frey, 1989). The cited instrument does have a significant history of use since August of 1993. Notwithstanding, significant revisions to the existing instrument were required for this study. The existing original instrument was designed as a telephone survey.

Based on The Support Network Client Evaluation Tool, a revised questionnaire was developed by the investigator for the purposes of this study. The principles of consistency and flow of development of the questionnaire, grouping of like questions in

terms of response sets and their relationship to the dependent variables eliciting the expectations of the respondent were followed (Fowler, 1993; Frey, 1989). The wording was retained to resemble the original as closely as possible in intent and organization, however, the questions were categorized and standardized in response sets. New questions were developed to reflect the intent of this study.

The study questionnaire is titled Sturgeon General Hospital Mental Health Crisis Intervention Program Client Survey (Appendix B).

The dependent variables indices previously cited were organized with the questions grouped as follows:

- Access (accessibility of services) - questions 1, 3, 4, 5, 6, 7, 8, 9, 13, 22, 23, and 24
- Satisfaction (satisfaction with services received) - questions 12, 15, 17, and 20.
- Outcomes (short, medium and longer term) - questions 2, 10, 11, 14, 16, 18, 19, and 21.

The independent variables that impact the dependent variables were reflected in questions 25 through 30:

- sex - question 25
- age - question 26
- home address/locale - question 27
- education - question 28
- income - question 29
- severity of illness - question 30.

The rating of subjects' responses was based on the use of a four interval Likert type scale for questions 3 - 18 on the study questionnaire. The questions were worded in such a way as to elicit a response ranging from strongly agree to strongly disagree. A forced choice was chosen because the questions do not lend themselves to a nonresponse or a noncommittal answer.

The questions elicited data as described below:

- Question one asked how the client gained entry to the crisis intervention program or team.
- Question two obtained background information on how frequently the client had sought help for a mental health problem in the past year.
- Questions 19 - 24 asked yes/no questions regarding current and ongoing mental health supports.
- Questions 21 and 22 elicited information on mental health interventions prior to and subsequent to accessing the mental health services programs. Question 22 further asked an open-ended sub-question to gain information if hospitalization occurred, when and for how long.
- Questions 25 - 30 were the demographic questions that reflected the independent variables in this study. Question 30 used a five category rating system of severity (major = 5 to minor = 1) based on the client's perception of how ill they were when they accessed the programs. This data was subsequently compared to that previously cited and accessed from the subject's health records emergency visit and mental health program chart for the major study. Chart ratings were defined based on the

Emergency Department Patient Coding System as developed by Alberta Health (1993).

Reliability and Validity

Reliability

Reliability refers to the consistency and dependability of the tool in obtaining results (Brink & Wood, 1988; 1989; Frey, 1989). It is the reliability of this instrument that is its greatest weakness as it is unproven. The intent of the aborted pilot study was to strengthen the reliability of the instrument. The reliability of the instrument in its original form is based on its history of use in the Edmonton program. The original tool has been developed by The Support Network in consultation with Alberta Mental Health Services, practicing psychiatrists and expert staff members from Alberta Health and field tested extensively. Rigorous examination for reliability has not been successfully undertaken.

Validity

In order for an instrument to be considered valid, it must measure what it is intended to measure (Brink & Wood, 1988, 1989; Frey, 1989). In this case the intent is to measure client experiences following an intervention in a particular constant setting. From there, the intent is to determine whether the intervention made a difference in dealing with the client's self determined needs and avoiding admission to inpatient psychiatric beds. The previously cited development of the original tool by The Support Network and the extensive field testing undertaken provides for some level of confidence in the content validity of the tool.

Face validity of the revised instrument is reflected in the nature and design of the questions that are consistent with the subject content of questions asked in patient satisfaction questionnaires. Control for documented problems in questions reported in the literature was considered in the revisions to the original tool from which the questionnaire was developed (Carey, & Siebert, 1993; Strasser & Davis, 1991; Matulich & Finn, 1989; Stamps & Lapriore, 1987; Schoenfeldt, Seale & Hale, 1987; Cassileth, Walsh, Blake & Greenspan, 1987; Chan & Juzwishin, 1984; Speedling, Morrison, Rehr & Rosenberg, 1983; Morrison, Rehr, Rosenberg & Davis, 1982). Content and face validity have been confirmed in previous discussion of the instrument development.

Data Collection

The questionnaire (Appendix B), accompanied by the letter of introduction and consent form (Appendices C & D), was mailed out to subjects requesting a completion and return of the questionnaire in an enclosed stamped, addressed envelope within two days of receipt. A telephone followup was planned within ten days of initial mailing to determine if subjects who have not yet responded have received the questionnaire and plan to participate. The telephone followup was abandoned early (after 10 calls). This action was due to the anxious response of family members when the subject was not home and the writer would not discuss the reason for the call with them. Instead, the followup letter previously cited was developed and used for this purpose (Appendix E).

The retrospective chart review involved three steps. First, a unique PIN identifier was assigned to each subject that reflected the case number, followed by the month and year, then by the provider assigned level of severity of presentation. For example, in the

major study (M) the first client (001) seen in July (07), 1995 (95) with a severity rank of 2 was coded as M001-01-95-2.

The retrospective chart review also recorded against the PIN number on the database a list of relevant medications. These medications were those that the client may have been taking that could affect their recollection of their experience with the program.

Due to temporal maturation, the responses of some members of the sample were based on longer term recall memory. The inclusion of the month and year of being exposed to the mental health services program was one way to account for this possibility.

The intervening and/or extraneous variables of history, maturation and mortality bias due in part to the rapidly changing economic environment may otherwise influence the expected stability of the population and in turn the internal validity of the study (Cook & Campbell, 1979).

Following receipt of completed consent forms and questionnaires, the data was transferred to an SPSS computer database (Norussis, 1993) in preparation for data analysis. Data was entered directly from the questionnaire onto the SPSS database. A codebook relating each question to a defined SPSS variable on the SPSS database was concurrently developed.

Ethical Considerations and Human Rights Protection

Ethical approval for the study was sought and attained through the Faculty of Nursing Ethics Committee in January 1995. Ethical approval was subsequently received in September 1995 when the research design was modified.

Subjects for the major study were accessed through client records at the Sturgeon General Hospital. A data release contract from the Sturgeon General Hospital was obtained and is retained in the investigator's locked files.

A letter of introduction with consent form (Appendices C and D) was sent to each potential subject at the address obtained from the client record. The envelope was addressed with the instruction that the package was "to be opened by the addressee only - confidential".

Confidentiality of information received from the subjects during the research study has been maintained by all parties involved in the research study. Only the investigator has access to the questionnaires completed.

Name, address and telephone number of the subject have been retained by the investigator in a separate, locked file accessible only to the investigator and located in the researcher's office at the Sturgeon General Hospital. Subject names with PIN identifiers along with the returned consent forms are kept separately in the research office in the investigator's locked filing cabinet. These items will be destroyed five years after the conclusion of the study. The computerized questionnaire files have been copied onto diskettes and the hard drive copies deleted. The diskettes will be separately retained and secured in the investigator's work office for a period of seven years.

The purpose of the study was explained to each client and the investigator's intentions regarding use of the data and results to effect future programming modifications was clearly described by the investigator. That refusal to participate in the

study or withdrawal from the study has not nor will affect access to nor level of service provision by the Sturgeon General Hospital or The Support Network was emphasized.

Data Analysis

The demographics, which represented the majority of independent variables in this study, were run on the sample using descriptive statistics. Frequencies were run on the dependent variables and grouped according to the criteria previously cited into the dependent variables indices. The independent variables were used to look at the frequency of responses for each dependent variable and dependent variables index.

Due to the limitations of sample size of thirty-four respondents, the response sets for the interval level data were small. This became problematic with the independent variables that had more than two descriptors. In order to continue with further data analysis, the interval level data was collapsed, that is, the strongly agree and agree data was collapsed into one set, that of agreement. The strongly disagree and disagree data was collapsed into one data set, that of disagreement. Crosstabulations were then done based on this revision.

Independent variables were run in crosstabulations to identify interrelationships between independent variables, for example, age and education. Crosstabulations were then conducted by effect of independent variable on the dependent variables within each dependent variables index. For example, the independent variable Gender was run against dependent variables index named Access, which included variables 1,3,4,5,6,7,8,9,13,22,23 and 24. Meaningful significance levels were not generally obtained from the crosstabulations for either the dependent variables alone, the

independent variables alone, nor the independent and dependent variables crosstabulations.

Reliability analysis was done to determine inter item reliability among the dependent variables as a whole and as subsets defined as the dependent variables indices. With inter item reliability confirmed (albeit moderate in nature in whole and within the subsets of the dependent variables indices) the next step was to run correlations looking at whether or not there were relationships within the independent variables themselves that may have other impacts. This process was then extended to examining for the presence of relationships between the independent variables and the dependent variables. Directional correlations were few and ranged from weak to moderate. Strong correlational relationships were not evident.

The small sample size and lack of strong correlations precluded more indepth data analysis. Multiple regression analysis was not undertaken. Causal relationships are not germane to this study, which is intended to describe and evaluate a mental health crisis intervention program from the client's experience.

CHAPTER 5

PRESENTATION OF FINDINGS

The Demographic Profile

The target population for this study were those individuals accessing the Mental Health Crisis Intervention Program through the Emergency Department of the Sturgeon General Hospital between the dates of July 4, 1994, and September 1, 1995. There were 304 visits during this period. A retrospective review of these visits revealed that 92 visits were people under the age of 18 years. This represented 30.5% of the total visits. Fifty-six visits were repeat clients, of which two clients were recorded as multiple (more than 2) visits. These fifty-six clients could only be surveyed once. Six clients did not meet the remaining inclusion criteria for sampling. The clients then meeting the inclusion criteria totaled one hundred and forty-nine.

Three mailouts were completed. The first mailout of 149 questionnaires was October 16, 1995. A followup letter was sent to 94 clients on November 16, 1995. A second mailout of the questionnaire was completed December 2, 1995 and sent to 79 clients.

Of the 149 clients surveyed, 30 clients had moved away (20%); 6 clients (4%) called the investigator and refused to participate; 3 clients (2%) were confirmed as deceased; and 76 clients (51%) did not respond, even with two follow-ups. Of the original 149 clients surveyed, 48 were male (32%) and 101 were female (68%). A total of 34 completed questionnaires was returned for a response rate of 23%.

Age

The largest age groups in the sample were the 18-25 (32.4%) and the 36-45 year olds (26.5%), followed by the 46-55 (20.6%) and the 26-35 year olds (11.8%). The over 56 age group represented only 9% of the total sample. Due to legal age of consent and confidentiality issues, the under 18 year olds were not surveyed although they represented 30.5% of the total visits to the program. The respondents to the survey are predominantly the young adult and the middle to late middle aged adult.

Table 1. Description of Age Aggregates of Respondents (n=34)

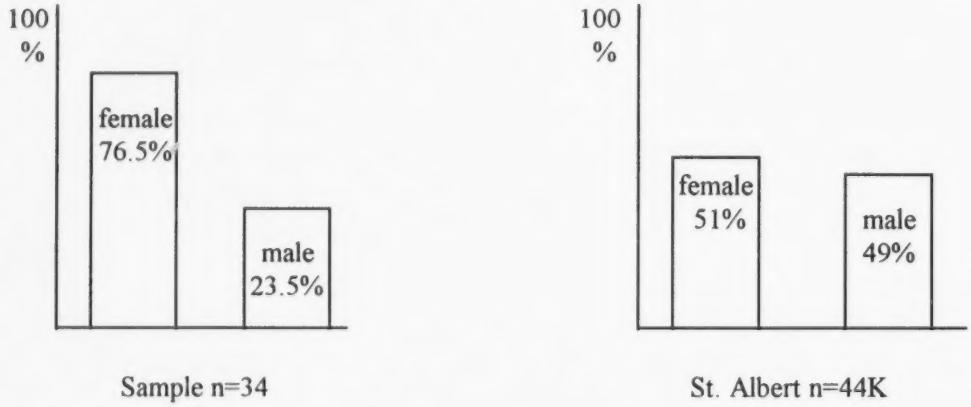
Age in Years	Frequency	Percent of n
over 65 (1)*	1	3
56-65 (2)	2	6
46-55 (3)	7	20.6
36-45 (4)	9	26.5
26-35 (5)	4	11.8
18-25 (6)	11	32.4
Mean	4.353 (36-55 yr)	
Median	4.000 (36-45 yr)	
Mode	6.000 (18-25 yr)	
Std Deviation	1.433	

* Note: ( ) value labels attached to each age group for analysis purposes

Sex/Gender

Three quarters of the respondents were female. The sampling included one hundred and one females that represent 68% of the total sample. The female respondents to the survey represent 76.5% of the total. A somewhat higher ratio of women to men responded to the questionnaire than existed in the original sample selected. Of the original forty-eight males surveyed (32% of the original sample), 8 males (23.5%) responded. By gender, the sample is more predominantly female than male both in the target population and the population as a whole.

Figure 2. Distribution of Sexes in Sample (n=34) as compared to St. Albert Population (n= ~ 44,000 or 44 K based on 1993 Statistics Canada Census data)

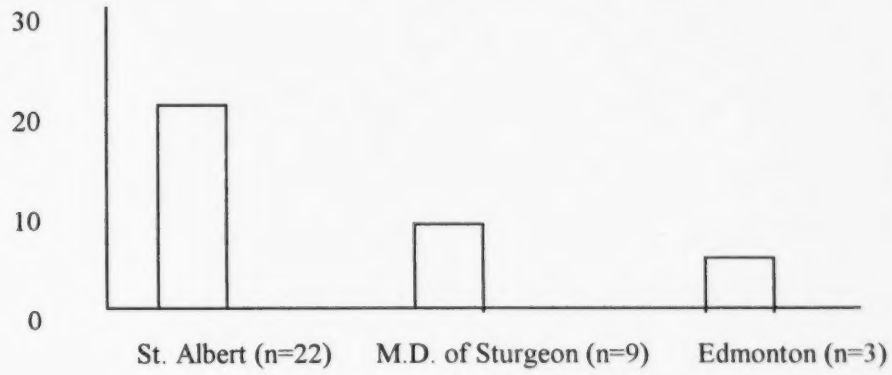


Sample n=34 St. Albert n=44K

Place of Residence

Place of residence was determined by the respondent's postal code. Within the sample, 64.7% lived in St. Albert proper, 8.8% lived in Edmonton and 26.5% lived in rural areas surrounding St. Albert, including the M.D. of Sturgeon, Legal, Redwater, Onoway and Morinville. The majority of respondents (73.5%) live in urban environments.

Figure 3. Distribution of Urban/Rural Environments by Postal Code (n=32)



Education

Education levels were reported by all but two (5.9%) of the respondents. Of those who reported education levels, 43.5% were educated at least the junior high or high school level and 56.2% reporting education at the post secondary level. Of those at the post secondary level, 40.6% were nonuniversity and 15.6% were at the university levels. None of the respondents reported no schooling or elementary level only education.

The sample then reflects a reasonably well educated group of respondents who could be expected to have had little difficulty understanding the questionnaire, which was developed at a less than Grade 4 reading level.

Table 2. Description of Respondents Level of Education (n=32)

Education level	Frequency	Percent of n
No Schooling (1)*	0	0
Elementary (2)	0	0
Junior High (3)	4	12.5
High School (4)	10	31
Nonuniversity (5)	13	40.6
University (6)	5	15.6
Mean	4.594 (high to nonuniv)	
Median	5.000 (nonuniv)	
Mode	5.000 (nonuniv)	

* Note: value label attached to each education level group for analysis purposes

Income

Income levels were reported by all but 4 (11.8%) of the respondents. Income levels were recorded in increments approximating $10,000. The majority reported family incomes of less than $19,999 at 19 frequencies representing 63.3% of the sample. Thirteen of these respondents (43.3%) reported an annual family income of less than $9,999. Of the remaining sample, 26.6% reported incomes between $20,000 and $49,999, while 10% reported incomes of over $50,000 per annum. None of the respondents reported an annual family income of over $59,999. The sample portrait

based on family income is one where the majority of respondents living close to the poverty level (63.3%).

Table 3. Distribution of Respondents Income Levels (n=30)

Annual Income	Frequency	Percent of n
<$ 9,999 (1)*	13	43.3
$10,000-$19,999 (2)	6	20
$20,000-$29,999 (3)	3	10
$30,000-$39,000 (4)	2	6.6
$40,000-$49,999 (5)	3	10
$50,000-$59,000 (6)	3	10
Mean	2.5 (>$19,999: <$29,999)	
Median	2.0 ($10,000-$19,999)	
Mode	1.0 (<$9,999)	

* Note: value label attached to each income group for analysis purposes

Severity of Illness - Client Defined (SOIC)

63.6% of respondents reported SOIC at the time of their program visit at 5 (most severe). Only two of the respondents (6.1%) reported levels less than 3 (moderate), 11.8% reported a level of 3, while the remaining 18% rated their SOIC as between 3.5 and 4.5 (moderate to somewhat severe). The majority of respondents believed that they were in a significant mental health crisis at the time of their access to the program with a rating of SOIC 5.

Table 4. Distribution of Respondents Severity of Illness - Client Defined (SOIC)

SOIC	Frequency (n=33)	Percent of n
1.000 (mild)*	2	6.1
2.000	-	-
2.500	-	-
3.000 (moderate)	4	11.8
3.500	1	3
4.000	2	6
4.500	3	9
5.000 (severe)	21	63.6
Mean	4.364	
Median	5.000	
Mode	5.000	

Note 1:* client defined rating scale reflecting how ill they felt when they visited the Sturgeon General Hospital Mental Health Services Crisis Intervention Program

Note 2: - depicts an empty cell, no response reported.

Severity of Illness - Provider Defined (SOIP)

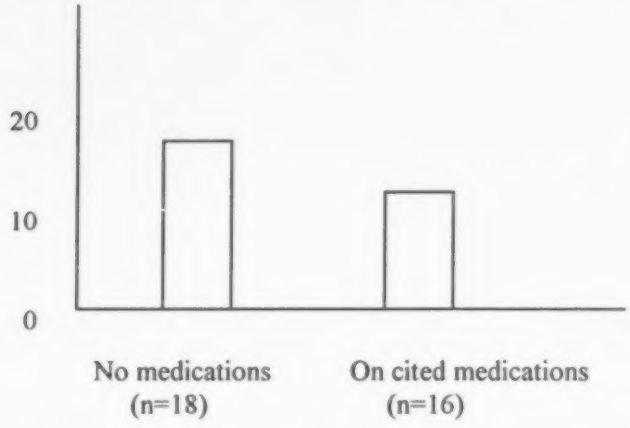
A retrospective chart review of the sample collected data on the Nursing Workload Resource Assignment (ER Workload Assignment Code List, Alberta Health, 1993) attributed to each respondent's surveyed visit to the program. Considering this assignment, 88.2% of the sample were assigned a workload code of 3 out of 5 and 11.8% of the sample a workload code of 4 out of 5. The four (moderately intense) workload codings were related to physical and/or sexual abuse cases for four of the respondents. The range for the workload coding is from 1 through 5, with 5 being the highest nursing workload resource code. A level five nursing resource coding example is an acute, unstable patient with life threatening comorbidities (ER Workload Assignment Code List, Alberta Health, 1993). The nursing resource intensity of the respondents in this study is moderate to moderately intense, validating to some extent the respondents' ratings of their SOIC. Due to the homogeneity of nursing resource workload data, this variable does not add to this study and was not explored further.

Medication Profile

A medication profile was also obtained through retrospective chart review of the respondents' surveyed visits to the program. Medications used primarily for psychiatric/neurological treatment and those which could cause impairment in mentation or recall were assigned a "yes" code. Examples of such medications included but are not exclusive to Prozac, Dilantin, Xanax, Mellaril, Lithium, Valium, Anafranil, Cogentin and Ativan. Within the sample, 47.1% of the respondents were taking one or more medications that could potentially affect their recollection of their experiences of the

program visit. Notwithstanding, 52.9% were on no relevant medication or any medication at all at the time of their visit.

Figure 4. Retrospective Chart Review Distribution of Relevant Medication Usage (n=34)



The Next Level: A Description of Observed Interdependencies Between Demographic Variables

The demographic profile of the sample previously described included observed interdependencies between the independent variables that are worth noting. Interdependencies for the purpose of this study are defined as those independent variables that are observed to be associated with or exist within the context of one or more of the other independent variables. Based on the cited observations and frequencies, crosstabulations and correlation were performed. Due to the small sample size, the search for meaningful correlation between the independent variables was limited. To present the findings in an organized manner, two of the independent variables, gender and age were selected against which to examine the other independent variables.

Gender and Age

Crosstabulations were run on age and gender variables. Women were represented across all age groups, with 64% being between the ages of 18 and 46 years. Of these, 45% were under age 35 years and 55% were between 36 and 45 years old. Men were represented across three of the age groups and most highly represented in the 18-25 yr. old and 36-45 year old groups (37.5% and 50% respectively). The highest numbers of men and women were in the 18-25 and 36-45 year groups. Men were absent in the 26 to 35 year and over 56 year age groups. Though more women than men are represented in this sample, the largest age grouping for males and females is similar. There were no significant relationships between age and gender.

Table 5. A Description of the Respondents Gender by Age Group (n=34)

	Frequency		Percent	
Gender	Male n=8	Female n=26	Male	Female
By Age Group				
over 65 yr	-	1	-	3%
56-65 yr	-	2	-	6%
46-55 yr	1	6	12.5%	23%
36-45 yr	4	5	50%	19%
26-35 yr	-	4	-	15%
18-25 yr	3	8	37.5%	30%

Note: - depicts an empty cell, no response reported.

Examination of Gender and Place of Residence, Education, Income, SOIC and Medication Profile.

Female respondents report post secondary education more often than do the male respondents. Sixty four percent of women reported education at the post secondary level while only 28.5% of male respondents report the same level of education ($r = .3505$; $p = .049$), thus supporting a relationship between being female and having a post secondary education.

Female respondents were more likely to report low family income levels. At an income level of below $9,999, 50% of the males and 41% of the females reported low income levels. 67% of females reported a family income level below $19,999. Men were not represented in the income group again until the $30,000 per annum threshold, which accounts for the remaining 50% of male respondents. Only 19% of women reported family incomes in excess of $30,000. Notwithstanding a moderate correlation found between education and family income ($r = .4658$, $p = .011$; see Table 13), there was no significant correlation found between gender and family income, perhaps because family income is codependent on whether or not another partner contributes to the family unit finances. In addition, the type and nature of post secondary education level was not further defined in the questionnaire, and may reflect training and education programs that are not high wage earning occupations. The question was not asked whether the individual respondent was employed at the time of the survey or whether they had worked during the past year. Higher levels of education of the respondents and higher

levels of family income do seem to be related to each other. There are a number of sources of explanation for this finding and no answer why this finding occurred.

Male and female respondents were proportionally equally represented in the urban and rural environments. No significant correlation was found between gender and place of residence.

Male respondents were more likely to report an SOIC at 5 (86%). Women reported an SOIC of 5 at 58% and an SOIC of 3 to 4.5 at 34.4%. These gender relationships were not significant.

Medication profiles indicated that men and women were equally likely to be on relevant psychiatric or mentation affecting medications. 50% of males and 46% of females were on medication at the time of their visit to the program. No significant relationships were found between gender and medication profiles in this sample.

Table 6. Gender by Education, Income, & Place of Residence

	Male (n=8)		Female (n=26)	
	Frequency	Percent	Frequency	Percent
Education	(n=7)		(n=25)	
• junior high	2	28.5%	2	8%
• high school	3	43%	7	28%
• non-university	2	28.5%	11	44%
• university	-	-	5	20%
Income	(n=8)		(n=22)	
• <$9,999	4	50%	9	41%
• $9,999-$19,999	-	-	6	26%
• $20,000-$29,999	-	-	3	14%
• $30,000-$39,999	1	12.5%	1	5%
• $40,000-$49,999	2	25%	1	5%
• $50,000-$59,999	1	12.5%	2	9%
Place of Residence	(n=8)		(n=26)	
• St. Albert	5	62.5%	17	65%
• M.D. Sturgeon	2	25%	7	27%
• Edmonton	1	12.5%	2	7%

Note 1: where decimal points have been <or> to .5, percentages have been rounded to the nearest whole number.

Note 2: - depicts an empty cell, no response reported.

Table 7. Gender by SOIC & Medication Profile

	Male (n=8)		Female (n=26)	
	Frequency	Percent	Frequency	Percent
SOIC	(n=7)	%	(n=26)	%
• 1 (mild)	-	-	2	8%
• 3 (moderate)	1	14%	3	11.5%
• 3.5	-	-	1	3.8%
• 4.0 (moderately severe)	-	-	2	7.6%
• 4.5	-	-	3	11.5%
• 5.0 (severe)	6	86%	15	58%
Medications	(n=8)	%	(n=26)	%
• no	4	50%	14	54%
• yes	4	50%	12	46%

Note 1: where decimal points have been <or> to .5, percentages have been rounded to the nearest whole number.

Note 2: - depicts an empty cell, no response reported.

Examination of Age and Place of Residence, Education, Income, SOIC and Medication Profile.

The sample reported a higher number of younger and middle aged respondents living in St. Albert than in the surrounding rural areas. Respondents between the ages of

18 and 45 years reflect 70.6% of the sample who live in St. Albert proper. Respondents living in the rural areas around St. Albert tended to be evenly spread across the age groupings (two respondents per interval to age 56 and one over age 56) up to age 65 years. No respondents over that age were reported. Respondents from Edmonton were three in number and were all in the 18-25 year age group. There was no significant correlation noted between age and place of residence.

Younger respondents were likely to be less educated than their parent's age group. In fact, 34.4% of the 18-25 year olds reported a junior high school education. In contrast, the 26-35 year old group reported education exclusively at the post secondary level and 66% of the 36-45 year old group reported being educated at the post secondary level. Older respondents were more likely to report higher education. There was no significant correlation between age and education.

Not surprisingly, the higher income groupings were reported by older respondents. Of the previously cited 43.3% of total respondents reporting an income below $9,999 (Table 3), 69.2% were under the age of 25 years. The observed spread of income and age was otherwise equitable with no significant correlation found between age and income.

Young adults 18-25 years showed more variation in response to the rating of Severity Of Illness - Client Defined than did other age groups. Only 50% of this age group rated themselves at the most severe rating of 5, while 75% of 26-35 year olds, 78% of 36-45 year olds and 71% of 46-55 year olds reported this rating. No significant correlation was found between age and SOIC.

Table 8. Age by Education, Income & Place of Residence (n=34)

	Years of Age by Frequency (Percent)					
	18-25	26-35	36-45	46-55	56-65	>65
Education (n=32)	(n=11)	(n=4)	(n=9)	(n=5)	(n=2)	(n=1)
• junior high	4 (36.3)	-	-	-	-	-
• high school	4 (36.3)	-	3 (33.3)	2 (40)	-	1(100)
• nonuniversity	2 (18.2)	2 (50)	6 (66.6)	1 (20)	2 (100)	-
• university	1 (9.1)	2 (50)	-	2 (40)	-	-
Income (n=30)	(n=11)	(n=4)	(n=9)	(n=5)	(n=1)	(n=0)
• <$9,999	9 (69.2)	-	1 (11.1)	3 (60)	-	-
• $9,999-$19,999	1 (9.1)	-	3 (33.3)	1 (20)	1 (100)	-
• $20,000-$29,999	1 (9.1)	2 (50)	-	-	-	-
• $30,000-$39,999	-	-	1 (11.1)	1 (20)	-	-
• $40,000-$49,999	-	-	3 (33.3)	-	-	-
• $50,000-$59,999	-	2 (50)	1 (11)	-	-	-
• Place of Residence	(n=11)	(n=4)	(n=9)	(n=7)	(n=2)	(n=1)
• St. Albert	6(54.5)	2(50)	7(77.7)	5(71.4)	1(50)	1(100)
• M.D. Sturgeon	2(18.2)	2(50)	2(22.2)	2(28.6)	1(50)	-
• Edmonton	3(27.3)	-	-	-	-	-

Note: - depicts empty cell, no response reported.

Table 9. Age by SOIC and Medication (n= 34)

	Years of Age by Frequency (Percent)					
	18-25	26-35	36-45	46-55	56-65	>65
SOIC (n=33)	(n=10)	(n=4)	(n=9)	(n=7)	(n=2)	(n=1)
• 1 (mild)	1 (10)	-	-	1 (14)	-	-
• 3 (moderate)	2 (20)	1 (25)	1 (11)	-	-	-
• 3.5	-	-	-	-	1 (50)	-
• 4.0	1 (10)	-	1 (11)	-	-	-
• 4.5	1 (10)	-	-	1 (14)	1 (50)	-
• 5.0 (severe)	5 (50)	3 (75)	7 (78)	5 (71)	-	1(100)
Medications	(n=11)	(n=4)	(n=9)	(n=7)	(n=2)	(n=1)
• no	7 (64)	3 (75)	4 (44)	2 (29)	1 (50)	1(100)
• yes	4 (36)	1 (25)	5 (56)	5 (71)	1 (50)	-

Note: - depicts empty cell, no response reported.

Examination of SOIC and Medication Profiles

The largest cell (53%) reporting the most severe SOIC was the group with a non university post secondary education. A higher reporting of severe SOIC was also seen in those respondents with higher incomes. The tendency to report higher SOIC increased with income and education levels. SOIC ratings did not appear to be affected by whether or not the respondent was on medication at the time of their visit (as determined through retrospective chart review). More high school (63%) and nonuniversity post secondary

educated (81%) respondents were recorded to be on medications at the time of their visit. These groups also reported lower family income levels (77% at < $19,999 per annum).

General Observations - An Overview

Considering the cited data, the sample is one of predominantly young or middle to late middle aged adult females, who have reasonably good education, yet live in urban environments with limited financial resources. All respondents have accessed the Mental Health Crisis Intervention Program because they believe they are experiencing a significant need for help. Notwithstanding, women may not rate their SOIC as being as severe as the males in the sample do. This finding and possible reasons for it will be explored later. Further, respondents are likely at least half of the time to already be on medications for a mental health related need, especially if they are in their middle years.

The ability of the program to affect people in the community is a direct function of what the community knows about the program and whether or not people will use it again in the future. Only 8.8% of the respondents had any previous knowledge of the program before coming to the Sturgeon although 76.5% reported that they would use the service again in the future.

The most common method of referral was self referral, which was reported 35.3% of the time. There were responses of multiple referral sources at 17.6% and 11.8% were referred by their physician, family or friends. Of those respondents who had accessed mental health services more than once in the past year, 45.1% believed that

help was available to them in their community on a twenty-four hour basis while 29.4% disagreed.

The mental health program was deemed to be easily accessible to 70.6% of the respondents. 58.9% of the respondents felt that the right kind of help was received from the program staff and 41.2% did not agree on this question.

For longer term impact of the respondents' visits to the program, 67.7% felt that the problem they had experienced that had prompted their visit to the program was better now than it had been. Only 2.9% reported having required admission to hospital for the same mental health problem in the past eight weeks, while 94.1% had not. Respondents indicated that timeliness and efficiency of service delivery remains an issue in that only 47.1% felt that they could receive needed mental health services in their community within twelve to twenty-four hours. Notwithstanding these perceptions, 64.7% of the respondents would use the mental health services at the Sturgeon again in the future.

The majority of respondents (53%) believed that the mental health program staff met their needs at the time of contact. Further, 58.8% reported overall satisfaction with the program and staff.

The majority of respondents (70.6%) had not had previous contact with a mental health agency within two weeks prior to their visit to the Sturgeon. This finding (along with the reported deficit of knowledge of the program within the community) may have had an impact on the perception of problems with timeliness and efficiency of mental health service delivery in the community.

Generally speaking, people using the services of the cited program were more likely than not to have used mental health services more than once in the past. For others it was the first point of access to the mental health system. In fact, 54.6% of the respondents had accessed the mental health system more than twice (30.0%) and up to five times (45.5%) in the past, while 24.2% reported their first visit through the program.

Although respondents were ambivalent about whether the program staff helped them successfully manage their particular mental health problem (47.1%), there was general agreement that the staff were helpful (73.5%). The difference here seems to lie in the qualifier "successfully". As previously stated, more respondents were satisfied with the outcomes of their visit than dissatisfied.

Most respondents also believed that they could reaccess the program if they needed to easily (58.8%) although 53% felt that the staff needed to respond more quickly to them. Response time then may be an issue. The wait for a staff member depends upon the on call system where staff are called in to see these clients and are not on site 24 hours per day.

On longer term outcomes, 79.4% of the respondents were not currently receiving treatment or counseling in the community for their mental health needs. Notwithstanding, 41.2% had required some ongoing community mental health intervention in the eight weeks subsequent to their visit to the Sturgeon.

Impact Analysis

The impact analyses of demographics on the respondents' individual and collective perceptions of the mental health program have been organized into indices. The discussion of findings is organized within these indices as follows:

The Access Index.

The Access Index reflects how respondents accessed the program on site and how experiencing the interventions associated with the program influenced or had an impact on their immediate and future mental health service experiences. This index was then examined through crosstabulations with the demographic variables.

Table 10. Degree of Agreement of Respondents: Access Index (n=34)

	Dependent Variables							
Valid %	local help?	timely help?	right place?	other place?	easy access?	quick?	right help?	better?
Sagree	9.1%	6.5%	54.5%	8.2%	15.2%	41.2%	26.5%	21.9%
Agree	36.4%	29.0%	33.3%	21.2%	57.6%	26.5%	32.4%	4.4%
Disagree	18.2%	25.8%	6.1%	42.4%	21.2%	29.4%	20.6%	34.4%
Sdisagree	12.1%	12.9%	6.1%	18.2%	6.1%	2.9%	20.6%	9.4%
N/A	24.2%	25.8%	-	-	-	-	-	-

Note: - depicts empty cell, no response reported.

For this subset the inter item reliability coefficient is low at standardized alpha of .0209. This led to the query of whether some of the variables ("who sent?", "admitted?", "know before?" and "use next time?" - see Appendix A: Description of

Dependent Variables) were relevant since they were not specifically targeted to the Sturgeon experience of the respondent. Reliability analysis was rerun excluding these variables with the result of an improved interitem reliability of standardized alpha = .4519. Correlation results are reported in Table 13 and discussed where appropriate throughout the text.

The Satisfaction Index.

The Satisfaction Index was developed to look at whether or not respondents were satisfied with the mental health intervention and services received from the Sturgeon General Hospital. As satisfaction with the services received could be impacted by other experiences with mental health agencies, they were also asked whether or not they had had such an experience within two weeks prior to their visit to the Sturgeon. As identified in the literature previously cited, client satisfaction with services received is dependent to a great extent on perceived timeliness, efficiency and effectiveness of the service provided.

The inter-item reliability co-efficient for this index was acceptable at alpha = .4509, standardized alpha = .4519. The variable defined as "<2 weeks?" being nominal was reviewed for relevance and retained in the analysis. There were no significant correlations between variables in this index.

Table 11. Degree of Agreement of Respondents: Satisfaction Index (n=34)

	Dependent Variables		
Valid %	use again?*	last year?	help
rec'd!			
SAgree	18.2%*	16.1%	21.9%
Agree	15.2%*	35.5%	34.4%
Disagree	30.3%*	32.3%	31.3%
SDisagree	36.4%*	16.1%	12.5%

Note* - question is worded in the negative, therefore the meaning of the response changes accordingly.

The Outcomes Index.

The outcomes of the program are critical to the evaluation and eventual refinement of the overall program, and must be considered within the envelope of other mental health service delivery programs in the community at large.

Table 12. Degree of Agreement of Respondents: Outcomes Index (n=34)

	Dependent Variables				
Valid %	re-access?	success?	quicker!	helpful!	satisfied!
SAgree	15.2%	12.9%	21.9%	21.2%	24.2%
Agree	45.5%	38.7%	34.4%	54.5%	36.4%
Disagree	30.3%	22.6%	34.4%	18.2%	24.2%
SDisagree	9.1%	25.8%	9.4%	6.1%	15.2%

The Outcomes Index was developed from questions that would help provide this context and guide the process of program evaluation.

This index demonstrated an acceptable inter-item reliability coefficient at alpha = .5552, standardized alpha = .5228. The variables defined as "help before?" and ">8 weeks?" were reviewed for relevance and retained in the analysis as they were directed questions concerning outcomes based on the respondents experience.

Table 13. Results of Correlation Analyses: Demographic Variables; Access and Outcome Variables (n=34)

Variables	Correlations	(p<.05)
Demographic		
Gender, Education	.3505	(p= .049)
Education, Income	.4658	(p= .011)
Demographic: Access		
Meds, Timely help?	.3702	(p=. 040)
Income, Right place?	.4791	(p= .009)
Income, Quick?	-.3690	(p= .045)
Income, Better?	.5718	(p= .002)
Education, Better?	.5547	(p= .003)
Age, Easy access?	-.4430	(p= .010)
Demographic: Outcome		
Age, Helpful?	.3807	(p= .026)
Age, Reaccess?	.3776	(p= .030)

Gender Effects

The Access Index.

Women were more likely to self refer than men (40% versus 25%), however, more men reported multiple referral sources than women (25% versus 16%). This finding most likely reflects societal norms which make it more acceptable for women to self seek help than men, and may also reflect findings in the cited literature in which women are core health decision makers and therefore identify health needs earlier and act upon these needs. Men may require multiple sources of validation of their need for help and may indeed seek other avenues of assistance before accessing a program such as that at the Sturgeon. Of all the respondents, only two reported the police as a referral source and both of these respondents were male. This may suggest that men behave differently when experiencing a mental health problem and may require authoritative intervention.

Proportionally more men than women were in agreement that they were able to get help in the community when they felt they need it (57% versus 43%), yet there were no gender differences on the timeliness of getting help within twelve to twenty-four hours. Notwithstanding the differences in these beliefs, those same respondents agreed that the Sturgeon was the right place to receive help 85.3% of the time, but felt that there was also a need to have an alternate community based site for mental health assistance (38.2%). Although men and women agreed that the hospital was a good place to get help, men preferred to get help at the hospital rather than in a community setting. Men were also more likely to rate the quickness and timeliness of response from the staff higher than women, suggesting a possible difference in expectations and/or service

between men and women. Seventy-five percent of men and 80% of the women reported that their mental health problem had improved since their visit to the program.

Table 14. Description of the Effects of Gender on Access Index (n=34)

	Male Freq (%) n=8 or ^ note					Female Freq (%) n=26 or ~ note				
	SA	A	D	SD	cum % agree	SA	A	D	SD	cum % agree
Access										
Local help?*	1(14)	3(43)	2(29)	-	(57)	2(8)	9(35)	4(15)	4(15)	(43)
Timely help?**	1(13)	2(25)	3(38)	1(13)	(50)	1(4)	7(30)	5(22)	3(13)	(50)
Right place?	5(63)	2(25)	1(13)	-	(85.3)	13(52)	9(36)	1(4)	2(8)~	(88)
Other place?	-	2(25)	4(50)	2(25)	(38.2)	6(24)	5(20)	10(40)	4(16)~	(44)
Easy access?	1(14)	5(72)	-	1(14)^	(85.7)	4(19)	14(54)	7(27)	1(4)	69.2)
Quick?	4(50)	3(38)	1(13)	-	(87.5)	10(38)	6(23)	9(35)	1(4)	61.5)
Right help?	3(38)	2(25)	1(13)	2(25)	(62.5)	6(23)	9(35)	6(23)	5(19)	65.4)
Better?	2(25)	4(50)	1(13)	1(13)	(75)	5(24)	12(57)	3(14)	5(5)~~	(80)

General Notes to Table 13:

Note 1: * One male respondent (13%) and seven female respondents (27%) had no prior experience with mental health services in the community, therefore this question was skipped to the next relevant question.
** One male respondent (13%) and seven female respondents (27%) had no prior experience with accessing mental health services in the community within 12 to 24 hours, therefore this question was skipped to the next relevant question.

Note 2: ^ n=7 for male respondents.
~ n=25 for female respondents.
~~ n=21 for female respondents.

Note 3: - depicts empty cells, no responses reported.

Gender related differences in the respondents suggest that men and women may have differing methods and motivations for accessing mental health services, expectations of those services and preferences for where those services are delivered. These findings are consistent with those in the cited literature.

The Satisfaction Index.

76% of the male respondents and 64% of the female respondents said they would use the Sturgeon program again in the future.Of interest is the parallel finding that 66% of the men reported that they had not had their needs met by the program staff, whereas 61% of the women reported the converse finding. It would appear that men may be more willing than women to continue to use a traditional service environment that does not meet their needs. This may be related to the findings cited in the literature regarding health decision-making and health locus of control. There were no gender differences in the level of agreement on whether or not timely twenty-four hour services had been available to them in the community over the past year as both men and women disagreed half of the time. Women reported seeking assistance at another mental health agency within the two weeks prior to their visit to the Sturgeon 31% of the time, whereas men reported the same finding 25% of the time.

Table 15. Description of the Effects of Gender on the Satisfaction Index (n=34)

	Male Freq (%) n=8 or ^ note					Female Freq (%) n=26 or ~ note				
	SA	A	D	SD	cum % agree	SA	A	D	SD	cum % agree
Satisfaction										
Use again?*	1(13)	5(63)	1(13)	1(13)	(76)	9(36)	7(28)~	5(20)	4(16)	(64)
Last year?	3(38)	1(13)	4(50)	-	(51)	2(9)	10(43)	6(26)	5(22)~~~	(52)
Help rec'd!	2(33)	-	4(66)	- ^^	(33)	5(19)	11(42)	6(23)	4(15)	(61)

Note 1: ^^ n=6 for male respondents.
~ n=25 for female respondents.
~~~ n=23 for female respondents.

Note 2: * "Use again?" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with seeking the Sturgeon again in the future for similar needs and mental health services. This meaning has been reflected in the transposition of data for this and subsequent tables.

Note 3: - depicts empty cells, no responses reported.

The Outcomes Index.

In the past, 50% of the male and 44% of the female respondents reported that they had sought assistance for their mental health problem more than five times. This finding would suggest that either the mental health problems were longer term in nature as opposed to a single situational or time limited crisis or that the outcome of any one visit was not successful enough to prevent reaccess of the mental health system.
~~~

Table 16. Description of the Effects of Gender on the Outcomes Index (n=34)

	Male Freq (%) n=8 or ^				cum % agree	Female Freq (%) n=26 or ~				cum% agree
	SA	A	D	SD		SA	A	D	SD	
Outcome										
Reaccess?	1(13)	5(63)	1(13)	1(13)	(76)	4(16)	10(40)	9(36)	2(8)~	(56)
Success?	1(13)	4(50)	1(13)	2(25)	(63)	3(13)	8(35)	6(26)	6(26)~~~	(48)
Quicker!	-	4(57)	3(43)	- ^	(57)	7(28)	7(28)	8(32)	3(12)~	(56)
Helpful!	2(28)	3(42)	2(28)	- ^	(70)	5(19)	15(58)	4(15)	2(8)	(77)
Satisfied!	2(28)	2(28)	2(28)	1(14)^	(56)	6(23)	10(38)	6(23)	4(15)	(61)

Note 1: ^ n=7 for male respondents.
~ n=25 for female respondents.
~~~ n=23 for female respondents.

Note 2: - depicts empty cells, no responses reported.

Men responded with more agreement on their level of satisfaction with their ability to re-access services if needed (76% male versus 56% female) and that they were assisted by the mental health program staff (63% male versus 48% female) than did the female respondents. However, female respondents were more likely to report higher levels of overall satisfaction with the mental health services received at the Sturgeon (61% female versus 56% male). The outcomes for male respondents seem to be in more concrete, self defined terms and for females in broader, socially defined terms. These findings most likely reflect socially and culturally defined gender differences as previously discussed.
~~~

Table 17. Description of the Effects of Gender on the Impact Indices: Access, Satisfaction and Outcomes - Nominal Level Data (n=34)

	Male Freq (%) n=7^, n=8		Female Freq (%)n=25~, n=26	
	No	Yes	No	Yes
Access				
Admitted?	7(100)	- ^	1(4)	25(96)
Know before?	6(86)	1(14)^	24(92)	2(8)
Use next time?	2(29)	5(71)^	5(19)	21(80)
Satisfaction				
<2 weeks?	6(75)	2(25)	18(69)	8(31)
Outcomes				
More help?	6(75)	2(25)	21(81)	5(19)
>8 weeks?	6(75)	2(25)	14(54)	12(46)

Note: - depicts an empty cell with no response reported.

Twenty-five percent of the male and 46% of the female respondents reported having been seen in a mental health agency within the eight weeks prior to the survey. Interestingly, 25% of male and only 19% of the female respondents reported that they were receiving continuing mental health worker follow-up in the community. It appears that although the female respondent group is more likely to use community agencies, they are less likely to receive continuing services. This outcome was unanticipated and requires further study. It may be that the nature of the mental health problem is different

for males and females and it is unfortunate that this area was not explored in the study. There were no significant correlation between these variables and gender, so it is not possible to determine whether or not there exists a relationship between the visit to the Sturgeon and a reduction in the percentage of respondents who required further mental health interventions or the need for continuing followup of the problem.

Age Effects

The Access Index.

The 18-25 year old group stood out as being somewhat different than the older age groups in this study. The 18-25 year old group had the greatest variation in method of referral, with all sources reported at least once, while the middle aged groups (36-45 and 46-55) were most likely to report multiple sources of referral. The oldest age group reported self referral only. These age related differences may reflect a difference between the ways people find out about sources of help or their social and cultural belief systems which have been documented in the literature as being a product of upbringing, time and distance. This is supported in part by the finding that younger respondents agreed more often that mental health services were generally available in the community when needed (66%) yet these services were not always available within twelve to twenty-four hours (28%).

There was a high level of agreement that the Sturgeon was the right place to offer mental health services, though the youngest age group (18-25 years) showed a level of disagreement not seen in the other age groups (27% disagreed). Although older age groups felt more often that there should be additional options available in the

community for mental health needs, the youngest age group showed ambivalence on this item with a 55/45 split in agreement/disagreement. Of note is the finding that the 36-45 year old age group disagreed most often, with a rate of 88% disagreement. Although people over the age of 45 years preferred services in the community over the hospital, the generation immediately following them preferred the hospital setting.

An intervening variable causing this finding may be one of societal expectations driven by the development of high technology and scientism in the acute care hospital setting that developed in the 1960's and 1970's when this 36-45 year old age group was forming values and internalizing their expectations of health services as "care and cure". The older age groups have had life experience with community based health service programs that predate the expansionism of hospital based health care. The youngest age group may be demonstrating the influence of their parents' beliefs and values, yet may also be cognizant of the impacts of health care reform and restructuring strategies in this health region.

The 46-55 year group also reported more often (50%) that they did not find it easy to contact the program staff nor did they find their response necessarily quick or efficient (43%). This again may reflect their comfort level with hospital based services versus community based services for their problems. The 18-25 year old age group reported similar findings (45% for both variables), and in addition were most likely to disagree (55%) that they received the kind of help that they felt they needed. Further, the youngest age group also reported most frequently (36%) that their mental health problem had not improved. This lack of improvement may be related to the differential

diagnosis of their mental health problem, but this analysis was not undertaken nor was the respondent asked the reason for their mental health program visit.

From this analysis, it is apparent that there are indeed age related differences in the sample. Young people use the widest variety of referral sources, middle aged groups report access through multiple referral sources, while older people are most likely to self refer. An inverse relationship was found between age and ease of access to the mental health program staff ($r = -.4430$, $p = .010$; see Table 13). There is a confirmed relationship in this study between being younger in age and the perception of reduced ease with which one can receive receive help from the mental health staff. Older people in general would prefer a mental health clinic based in the community setting and an easier and more responsive method of accessing mental health resources. The 36-45 year old group seems to be the most comfortable with the services being delivered in an acute hospital care environment. The youngest people are less sure of where these resources should be located, but are clearly less than satisfied with access and report less satisfaction with how their problems were managed and how they felt at the time of the survey.

Table 18. The Impact of Age on General Agreement/Disagreement Regarding Access Index Variables (n=34)

	18-25 yr (n=11)		26-35 yr (n=4)		36-45 yr (n=9)		46-55 yr (n=7)		>56 yr (n=3)	
Access (%)	A	D	A	D	A	D	A	D	A	D
Local help?	66	33	66	33	50	49	50	49	33	66
Timely help?	28	63	66	33	49	49	50	49	-	100
Right place?	73	27	100	-	77	22	83	17	100	-
Other place?	55	45	50	50	11	88	66	33	33	66
Easy access?	55	45	100	-	89	11	50	50	100	-
Quick?	55	45	75	25	78	22	57	43	100	-
Right help?	45	55	75	25	55	45	57	43	100	-
Better?	64	36	100	-	89	11	80	20	100	-
	N	Y	N	Y	N	Y	N	Y	N	Y
Admitted?	100	-	100	-	100	-	83	17	100	-
Know before?	91	9	100	-	78	12	100	-	100	-
Use next time?	36	64	25	75	-	100	33	66	-	100

Note 1: due to small numbers of respondents in the 56 year and older age groupings (n=3), all those meeting this criterion have been collapsed into the over 56 year old group for the purposes of this table only. Percentages have been rounded to the nearest whole number, therefore may not sum to 100%.

Note 2: - depicts empty cells, no responses reported.

The Satisfaction Index.

The majority of respondents agreed that they would use the Sturgeon again in the future. Notwithstanding, 57% of the 46-55 year old and 45% of the 18-25 year olds would not choose the Sturgeon the next time they required mental health services.

Agreement/disagreement findings regarding the ability to get timely help in the community over the past year was about 50% overall for the under 36 year olds. Of those who agreed, the 36-45 year old group had the highest level of agreement while the 46-55 year old group had the highest level of disagreement.

Slightly more than half of the respondents agreed that the Sturgeon staff had met their needs, with the 26-35 year old group reporting more agreement at 75% and the 56-65 year groups at 100% agreement. Again, the 18-25 year old group reported the highest level of disagreement (55%) and the 46-55 year olds disagreed 50% of the time.

There are some age related differences in the levels of satisfaction that respondents have with the program, with the current program appearing to appeal less often to the 18-25 and 46-55 year old age groups. Age group related social norms and expectations may be driving these respondents' perceptions. These findings are consistent with those reported in the Access Index and the literature.

Table 19. The Impact of Age on General Agreement/Disagreement Regarding Satisfaction Index Variables (n=34)

	18-25 yr (n=11)		26-35 yr (n=4)		36-45 yr (n=9)		46-55 yr (n=7)		>56 yr (n=3)	
Satisfaction (%)	A	D	A	D	A	D	A	D	A	D
Use again?	55	45	75	25	12	88	43	57	100	-
Last year?	45	55	50	50	75	25	28	72	100	-
Help rec'd!	45	55	75	25	50	50	50	50	100	-
	N	Y	N	Y	N	Y	N	Y	N	Y
>2 weeks?	73	27	100	-	55	45	57	43	100	-

Note 1: due to small numbers of respondents in the 56 year and older age groupings (n=3), all those meeting this criterion have been collapsed into the over 56 year old group for the purposes of this table only. Percentages have been rounded to the nearest whole number, therefore may not sum to 100%.

Note 2: "Use again?" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with seeking the Sturgeon again in the future for similar needs and mental health services. This meaning has been reflected in the transposition of data for this and subsequent tables.

Note 3: - depicts empty cells, no responses reported.

The Outcomes Index.

The 18-25 year old age group again demonstrated differences in outcomes within the assigned variables. The age group most likely to have used mental health services more than once in the past was the 18 - 25 year old age group at 82% of the respondents, and within this group 55% reported accessing the system more than five times. Although the 36 - 45 year old and 46 - 55 year old age groups reported accessing the system more than once at 66% of each group, 45 % and 55% of each group

respectively reported access more than five times. It would appear then that the younger respondents were more likely to access the mental health system more often than the older age groups, yet this utilization levels out on repeated access of more than five times so that the age groups look very similar. This leads to speculation from looking at previous findings that there may be some other issues, such as the 18 - 25 year old respondents' perceptions of service appropriateness, timeliness and accessibility that may be related to this finding.

In general, more of the younger respondents reported further visits to a mental health agency within the past eight weeks than did the older age groups. Forty-five percent of the 18 - 25 year olds reported this finding, while 75% of the 26 - 35 year olds and only 23% of the 36 - 45 year old groups reported such visits. The other group likely to have visited a mental health agency was the 46-55 year old group, who reported such visits 57% of the time. There was, however, relatively equal distribution across the age groups for those respondents who were receiving ongoing help in the community through a mental health worker with most of the respondents regardless of age not receiving treatment. The exception was the >56 year olds of which 2 out of 3 respondents reported ongoing treatment.

Again, similar to findings within the Access and Satisfaction Indices, the 18 - 25 year old age group reported a 55% level of disagreement that they could reaccess mental health services easily and quickly, and that they were less successful in managing their problem with the help of the mental health program staff (64% disagreed), although they agreed with the other age groups in general that the mental health program staff were

helpful to them (73% agreed). There was also a sense that the mental health staff needed to be more responsive within this age group, with 70% reporting agreement with this statement.

The 26-35 year old and 46 - 55 year old groups reported disagreement that they could reaccess services quickly and easily at 75% and 43% respectively while the 36 - 45 year old group reported 88% agreement on this item. A relationship was found between age and the ability to reaccess the program quickly when needed ($r = .3776$, $p = .030$; see Table 13). There is then a relationship between being younger in age and increased ease of reaccessing the mental health program.

The 26 - 35 year old group reported 75% agreement that the mental health program staff helped them successfully manage their problem. All of the oldest age group agreed (100%),while the 36-45 year old and 46-55 year old group agreed at 55% and 40% respectively. The general helpfulness of the mental health program staff to the respondents was found to range from 63% with the 36 - 45 year olds, 71% of the 46-55 year olds and 73 % of the 18-25 year olds to 100% with the remaining age groups. A relationship was found between age and helpfulness ($r= .3807$, $p= .026$; see Table 13) where being older was related to finding the staff to be more helpful. As age in years increases, people are more likely to report that they got the kind of help they needed. Overall satisfaction with the mental health program generally ranged from 50-60%, with the exception of the 26-35 year olds (75%) and the >56 year olds (100%).

Table 20. The Impact of Age on General Agreement/Disagreement Regarding Outcomes Index Variables (n=34)

	18-25 yr (n=11)		26-35 yr (n=4)		36-45 yr (n=9)		46-55 yr (n=7)		>56 yr (n=3)	
Outcomes (%)	A	D	A	D	A	D	A	D	A	D
Reaccess?	45	55	25	75	88	12	57	43	100	-
Success?	36	64	75	25	55	45	40	60	100	-
Quicker!	70	30	25	75	44	56	100	0	100	-
Helpful!	73	27	100	-	63	37	71	29	100	-
Satisfied!	55	45	75	25	50	50	57	43	100	-
	N	Y	N	Y	N	Y	N	Y	N	Y
More help?	64	36	100	-	89	11	100	-	33	66
>8 weeks?	55	45	25	75	77	23	43	57	100	-

Note 1: due to small numbers of respondents in the 56 year and older age groupings (n=3), all those meeting this criterion have been collapsed into the over 56 year old group for the purposes of this table only. Percentages have been rounded to the nearest whole number, therefore may not sum to 100%.

Note 2: - depicts empty cells, no responses reported.

From these diverse findings it is apparent that the needs of the different age groups may be related to differing life experiences and the situations driving them to seek mental health services may also be different. The reported outcomes of mental health experiences are somehow impacted by the age of the person seeking services. There are apparently other factors which have not been considered in this study which are present and have not been accounted.

Education Effects

The Access Index.

As education levels increased in the sample, so did the levels of agreement on a number of the variables. Although the majority of respondents agreed that the Sturgeon was the right place to receive services, the level of agreement increased with education, with the highest agreement at the post secondary levels (92%). University educated respondents also agreed least often (20%) that an alternate community based site was more appropriate for service delivery. Those with junior high education preferred the community setting most often (75%). Other post secondary educated respondents agreed less often that services were available to them in their community (77% disagreement) or that those services were available in a timely manner (83% disagreement). Multiple referral sources and self referral were cited by those with a nonuniversity education (45% of respondents), while those reporting education at or below high school were more likely to be referred by a health care professional, school or family/friend.

University level (100%) and nonuniversity post secondary (69%) respondents reported most often that they had ease of access to the mental health program staff and efficient and responsive access (80% and 69% respectively), while high school educated respondents reported that the response they received was not quick and efficient 50% of the time. As education levels decreased, so did the reporting of receipt of the kind of help the respondent felt that they needed, from 80% at the university level down to 50% at the junior high level. This trend was also noted in the reporting of mental health problem improvement, from 100% agreement at the university level to only 50%

agreement at the junior high level. A moderate correlation ($r = .5547$, $p = .003$; see Table 13) was observed between education and whether or not respondents problems improved. As education level decreases, less improvement in the mental health problem was reported. Levels of agreement on whether or not respondents would use the mental health program again similarly decreased with lower education levels from 80% at the university level down to 50% at the junior high level.

It is clear from this description that the higher the level of education, the more comfortable the respondent was with the location and nature of mental health services that were available to them at the Sturgeon. This difference in comfort levels is most likely a reflection of the physical setting for program delivery being in an Emergency Department, the profesionnalization of the mental health intervention and comparable education levels between nonuniversity and university level respondents with the mental health therapists. The hospital itself is located in an upper income neighborhood and this may also be a variable that affects the comfort level of those respondents who do not share the educational nor economic resources that may be perceived to be attached to the hospital. Although acceptable to upper middle income respondents, people of lower income levels would prefer to have their services delivered elsewhere and in some way differently in the community setting.

Table 21. The Impact of Education on Percentage/Frequency of General Agreement/Disagreement: Access Index Variables (n=32)

	Jr.High (n=4)		High (n=10)		Non-Univ (n=13)		Univ (n=5)	
Access	A	D	A	D	A	D	A	D
Local help?	50(2)	50(2)	60(6)	40(4)	23(3)	77(10)	80(4)	20(1)
Timely help?*	100(4)	-	63(5)	38(3)	17(2)	83(10)	80(4)	20(1)
Right place?**	75(3)	25(1)	77(7)	23(2)	92(12)	8(1)	100(5)	-
Other place?**	75(3)	25(1)	33(3)	66(6)	38(4)	62(9)	20(1)	80(4)
Easy access?	75(3)	25(1)	60(6)	40(4)	69(9)	31(4)	100(5)	-
Quick?	75(3)	25(1)	50(5)	50(5)	69(9)	31(4)	80(4)	20(1)
Right help?	50(2)	50(2)	50(5)	50(5)	54(7)	46(6)	80(4)	20(1)
Better?***	50(2)	50(2)	60(6)	40(4)	90(9)	10(1)	100(4)	-
	N	Y	N	Y	N	Y	N	Y
Admitted?	100	-	100	-	100	-	80	20
Know before?	100	-	90	10	85	15	100	-
Use next time?	50	50	20	80	15	85	20	80

Note 1: * n=29, **n=31, ***n=27.

Note 2: - depicts empty cells, no responses reported.

The Satisfaction Index.

Consistent with findings regarding access and education levels, twice as many high school and nonuniversity educated respondents would use the Sturgeon program

again as those who would not use the program again. This ratio shifts somewhat at the university educated level where 60% agreed they would do so, while those with a junior high education agreed about 50% of the time. University educated respondents agreed 80% of the time that they were able to access timely community mental health services within the past year.

As education levels decreased, so did the respondents' satisfaction with timely community access to services, with junior high educated respondents reporting 75% disagreement. As education levels increased, more agreement was seen in whether or not the respondents' perceived that the mental health staff at the Sturgeon met the respondents needs at the time of contact. This ranged from 50% agreement at the junior high level , 45% at high school, 54% at nonuniversity post secondary and 80% at the university levels.

Reported visits to other mental health agencies within the two weeks prior to their Sturgeon visit revealed that nonuniversity respondents were the most likely to have made such a visit at 46%. None of the junior high group, 30% of the high school group and 20% of the university group reported such visits.

There may be rationale for these findings within the context of gender differences. As previously cited, more of the respondents with post secondary education were female. Access and satisfaction with the program at the Sturgeon have also been discussed in terms of gender differences. This remains purely speculative as there was no significant correlation found between education and the Satisfaction Index.

Table 22. The Impact of Education on Percentage/Frequency of General Agreement/Disagreement: Satisfaction Index Variables (n=32)

	Jr.High (n=4)		High (n=10)		Non-Univ (n=13)		Univ (n=5)	
Satisfaction	A	D	A	D	A	D	A	D
Use again?**	50(2)	50(2)	66(6)	33(3)	69(9)	31(4)	60(3)	40(2)
Last year?*	25(1)	75(3)	55(5)	45(4)	55(6)	45(5)	80(4)	20(1)
Help rec'd!**	50(2)	50(2)	45(4)	55(5)	54(7)	46(6)	80(4)	20(1)
	N	Y	N	Y	N	Y	N	Y
<2 weeks?	100	-	70	30	54	46	80	20

Note 1: * n=29, **n=31.

Note 2: "Use again?" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with seeking the Sturgeon again in the future for similar needs and mental health services. This meaning has been reflected in the transposition of data for this and subsequent tables.

Note 3: - depicts empty cells, no responses reported.

The Outcomes Index.

There were differences noted regarding the impact that education levels had on most of the variables in this index. Respondents educated below the university level had the highest incidence of reporting that they had accessed mental health services more than five times in the past (junior high 75%, high school 63%, nonuniversity 62%, university 20%). It is apparent then that the lower the level of education within this sample, the higher the reported incidence of use of mental health services.

Across the education levels there was a generally high level of agreement that the mental health program staff were helpful. University educated respondents reported agreement regarding the help received at 100%, with 77% agreement at the high school level and 75% at the junior high level. Notwithstanding, there was only 61% agreement on this item at the nonuniversity post secondary level.

As educational status decreased, higher expectations were expressed regarding the responsiveness of the mental health program staff. Those educated at the junior high and high school levels agreed that the staff needed to be more responsive 66% and 60% of the time respectively, while nonuniversity educated and university educated respondents agreed 46% and 50% of the time with this statement. Overall satisfaction with the services provided at Sturgeon ran around 50% with all groups except the university educated, who reported 80% satisfaction.

The group most likely to have accessed mental health services within the past eight weeks were the university educated group at 80%, those least likely were the junior high group at 25%. The likelihood of accessing these services increased with education level. Again, as reported earlier, there were no educational groupings that were more likely to be seeing a mental health counselor on an ongoing regular basis.

Consistent with the findings within the Access and Satisfaction Indices, as education levels increase, so do the general levels of agreement regarding positive outcomes for respondents using the mental health program at Sturgeon. Those with higher education levels report lower utilization, higher overall satisfaction and are more likely to continue to access the mental health system for their problem. Those with the

lowest educational level are most likely to report high utilization, lower overall satisfaction and are less likely to seek ongoing assistance for their problem. Some of the possible reasons for this dichotomy have been explored in the cited literature and will be expanded further.

Table 23. The Impact of Education on Percentage/Frequency of General Agreement/Disagreement: Outcomes Index Variables (n=32)

	Jr.High (n=4)		High (n=10)		Non-Univ (n=13)		Univ (n=5)	
Outcomes	A	D	A	D	A	D	A	D
Re-access?**	50(2)	50(2)	60(6)	40(4)	58(7)	42(5)	60(3)	40(2)
Success?*	50(2)	50(2)	33(3)	66(6)	54(7)	46(6)	66(2)	33(1)
Quicker!***	66(2)	33(1)	60(6)	40(4)	46(6)	54(7)	50(2)	50(2)
Helpful!**	75(3)	25(1)	77(7)	23(2)	61(8)	39(5)	100(5)	-
Satisfied!**	50(2)	50(2)	55(5)	45(4)	54(7)	46(6)	80(4)	20(1)
	N	Y	N	Y	N	Y	N	Y
More help?	75	25	80	20	77	13	80	20
>8 weeks?	75	25	60	40	61	39	20	80

Note 1: * n=29, **n=31, ***n=30.

Note 3: - depicts empty cells, no responses reported.

Income Effects

The Access Index.

There were notable differences between income groups. The lowest income group (< $9,999) was the only one to cite the distress line and/or police as the source of referral to the program. This group and the next step income group ($10,000 - $19,999) reported the use of multiple access sources most often (50% of the time). The lowest economic income groups (below $20,000) were least likely to agree that the Sturgeon was the right place to provide mental health services. The highest level of agreement that the Sturgeon is the right place is with the higher economic groups (over $40,000 at 100% agreement). There was a correlation ($r = .4791$, $p = .009$; see Table 13) between income and whether or not respondents felt that the Sturgeon was the right place to offer 24 hour mental health services. A relationship thus exists between higher income and agreeing or strongly agreeing that the Sturgeon is the right place. These findings support the rationale put forward in the previous discussion of education effects. As income levels increase, so does agreement on the ease of access to the program staff, as well as the highest level of agreement on quickness and efficiency of the staff response. An inverse relationship was observed ($r = -.3690$, $p = .045$; Table 13) between income and the respondents perception that the mental health staff were quick and efficient at responding to their problem. Lower levels of income were related to an increased perception that these services were quick and efficient. The level of agreement on whether or not the respondent's problem had improved increased with income. A relationship ($r = .5718$, $p = .002$; see Table 13) was observed between income and

improvement in the mental health problem. Higher income levels are related to a higher agreement level that the mental health problem has improved. Interestingly, of those respondents who did have prior knowledge of the program, all reported incomes of less than $20,000. Respondents in the lower income groups were more likely to respond that they would not use the mental health program again (33%), while 100% of those with family incomes of more than $30,000 indicated that they would use the program again.

It is clear that income levels affect respondents' perceptions of impact and access to the current mental health program at Sturgeon. As income levels decrease, respondents cite more disagreement with where the program should be delivered, the effectiveness and responsiveness of the staff, improvement in their problem and whether they would use the program again in the future. The reasons cited previously in the discussion of education effects is most likely related to these findings, as are the previously discussed effects of age and the relationship identified between education and income.

Table 24. Percentage of Agreement/Disagreement Based on Annual Family Income Level (in thousands = K): Access Index Variables (n=30)

K	<9.9		10-19.9		20-29.9		30-39.9		>40^	
	(n=13)		(n=6)		(n=3)		(n=2)		(n=6)	
Access (%)	A	D	A	D	A	D	A	D	A	D
Local help?***	50	50	33	66	33	66	50	50	50	50
Timely help?**	40	60	50	50	-	100	50	50	50	50
Right place?***	58	42	83	17	100	-	100	-	100	-
Other place?***	58	42	33	66	66	33	50	50	83	17
Easy access?***	58	42	66	33	66	33	50	50	100	-
Quick?	54	46	66	33	33	66	50	50	100	-
Right help?	46	54	66	33	33	66	50	50	66	33
Better?*	62	38	80	20	100	-	100	-	100	-
	N	Y	N	Y	N	Y	N	Y	N	Y
Admitted?**	100	-	83	17	100	-	100	-	100	-
Know before?**	92	8	66	33	100	-	100	-	100	-
Use next time?	33	66	84	16	66	33	-	100	-	100

Note 1: *n=27, **n=28, ***n=29

Note 2: ^ Due to homogeneity of the data and for the purposes of this table only, respondents earning an annual family income of over 40K (40K to 49.9K n=3; 50K to 59.9K n=3) have been grouped together. No respondent earned an annual family income of over 60 K in this sample.

Note 3: - depicts empty cells, no responses reported.

The Satisfaction Index.

The effects of income on satisfaction showed a consistent picture of satisfaction decreasing with income levels. Findings were consistent also with those reported in the discussion on access. As income levels decreased, more respondents agreed that they would not use the Sturgeon again, less agreement that they could access timely services within the past year and less agreement that their needs were met by the mental health program staff.

Table 25. Percentage of Agreement/Disagreement Based on Annual Family Income Level (in thousands = K): Satisfaction Index Variables (n=30)

K	<9.9 (n=13)		10-19.9 (n=6)		20-29.9 (n=3)		30-39.9 (n=2)		>40^ (n=6)	
Satisfaction	A	D	A	D	A	D	A	D	A	D
Use again?**	58	42	66	33	33	66	50	50	100	-
Last year?*	38	62	60	40	66	33	50	50	50	50
Help rec'd!*	42	58	66	33	33	66	50	50	50	50
	N	Y	N	Y	N	Y	N	Y	N	Y
<2 weeks	77	23	50	50	66	33	50	50	66	33

Note 1: *n=28, **n=29
Note 2: ^ Due to homogeneity of the data and for the purposes of this table only, respondents earning an annual family income of over 40K (40K to 49.9K n=3; 50K to 59.9K n=3) have been grouped together. No respondent earned an annual family income of over 60 K in this sample.
Note 3: "Use again?" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with seeking the Sturgeon again in the future for similar needs and mental health services. This meaning has been reflected in the transposition of data for this and subsequent tables.
Note 4: - depicts empty cells, no responses reported.

The lowest income group were least likely to have been seen at another mental health agency (77%) within the two weeks prior to their Sturgeon visit. The personal and financial costs (such as child care or bus fares as possible examples) of accessing such services may be an intervening variable that impacts this study.

Satisfaction with services received at the Sturgeon and in the community is influenced by income levels as demonstrated by these findings. The development of this particular mental health program which was targeted towards the middle class clearly does not meet the needs of the lower income group in this study.

The Outcomes Index.

Respondents in the lowest income level categories (<$19,999) were most likely to have been experiencing mental health problems more than five times in the past (66% at <$9,999 and 33% at $10,000 - $19,999).

As income levels decreased, the level of disagreement increased that the mental health program staff helped them to manage their problem successfully. 54% of those respondents at an income level of less than $9,999 and 66% of those earning $10 - $19.9K reported this finding, while middle income groups reported at 50% disagreement. In terms of responsiveness of the mental health program staff, a dichotomy is noted. 75% of the lowest income group (<$9.9) and 100% of the highest income group ($50 - 59.9K) report satisfaction with the responsiveness of the staff. Conversely, 25% of the lowest income and 44% of the highest income groups report dissatisfaction on this item. As income levels increase, respondents were less likely to report agreement that the staff were responsive to their needs. From this observation, it might be

suggested that expectations may be higher regarding the speed with which staff respond for people with higher income levels.

In the low to middle income categories (<$9,999 - $39,999), as income level increased, the level of agreement increased from 77% to 100% that the mental health program staff had helped them with their problem. The respondents in the $40,000 - $49,000 group are different from the other income groups. Those respondents with incomes of >$40,000 disagreed 100% of the time with this item while those with incomes of >$50,000 agreed 100% of the time. Further, the 40-49.9K group also reports high disagreement (100%) with overall satisfaction with the services received. Other than this anomaly, overall satisfaction with the services increases from 54% at the lowest income to 100% satisfaction at the over $50,000 end. Again, the nature of the mental health problem that brought the respondents to the Sturgeon may be an unaccounted factor in these findings.

The lowest income group (77%) were most likely to report that they were not receiving ongoing mental health follow-up, although they were most likely to report a visit to a mental health agency within the past eight weeks at 54%. This finding may be related to the costs associated with receiving ongoing care, whether direct out of pocket expenses or lack of access to private insurance to pay for such services. Most mental health agencies provide services at no direct cost to the client, so this may be the only avenue for low income respondents to receive needed services. Income level had no impact on whether or not respondents believed that they could re-access services easily at the Sturgeon.

The data suggests a relationship may exist between income and outcomes although there was no confirmation of such a relationship through correlation. Notwithstanding, it appears that there may be an impact on the reported outcomes of the program based on respondents' income. Those respondents with lower incomes reported higher utilization of the public mental health system, less propensity to access one on one services and less satisfaction with the management of their mental health problem at the Sturgeon.

Table 26. Percentage of Agreement/Disagreement Based on Annual Family Income Level (in thousands = K): Outcomes Index (n=30)

K	<9.9		10-19.9		20-29.9		30-39.9		>40^	
	(n=13)		(n=6)		(n=3)		(n=2)		(n=6)	
Outcomes	A	D	A	D	A	D	A	D	A	D
Re-access?**	75	25	50	50	66	33	50	50	50	50
Success?**	46	54	33	66	33	66	50	50	50	50
Quicker!*	75	25	40	60	66	33	50	50	33	66
Helpful!**	77	23	66	33	66	33	100	-	50	50
Satisfied!**	54	46	66	33	33	66	50	50	50	50
	N	Y	N	Y	N	Y	N	Y	N	Y
More help?	77	23	66	33	66	33	100	-	100	-
>8 weeks?	46	54	66	33	-	100	100	-	66	33

Note 1: *n=28, **n=29
Note 2: ^ Due to homogeneity of the data and for the purposes of this table only, respondents earning an annual family income of over 40K (40K to 49.9K n=3; 50K to 59.9K n=3) have been grouped together. No respondent earned an annual family income of over 60 K in this sample.
Note 3: - depicts empty cells, no responses reported.

Respondents with higher incomes reported lower utilization of the system and a higher likelihood of receiving ongoing mental health counseling. Further, they were more likely to report overall satisfaction with the services received at the Sturgeon. These findings are consistent with those reported in the Access and Satisfaction Indices.

Place of Residence (Postal Code) Effects

The Access Index.

People living in the M.D. of Sturgeon or towns and villages within the M.D. were most likely to access the program through self referral (50%) or multiple sources (25%). St. Albert residents either self referred (36%) or were referred by a health professional or the Distress Line (27%). Respondents from Edmonton accessed the program twice through the police. The highest level of agreement that help was available in the community was from St. Albert (70%). This is not surprising as there were only three Edmonton respondents and the rural respondents do not have community mental health resources available to them 24 hours a day. Help being available within 12-24 hours was agreed to more often in St. Albert (60%) with the obverse occurring in the M.D. and Edmonton at 100% and 66% disagreement respectively. Interestingly, the premise that the Sturgeon is the right place for mental health services was agreed to more highly in the M.D. at 100% and in St. Albert at only 91%. One possible explanation for this finding is that the Sturgeon General Hospital was originally built with monies requisitioned in part from the M.D., and the residents of the M.D. have some sense of ownership of the hospital. St. Albert residents often seek health services within Edmonton proper and may not have the same sense of community ownership that

is evident in the rural population the hospital serves. Notwithstanding this finding, 75% of the M.D. respondents agreed that there should be a community mental health clinic located elsewhere in the community, possibly reflecting a need for more accessible services where they live. St. Albert respondents answered this question differently, with 77% disagreeing that there should be an alternate or additional site in the community for these services. The three Edmonton respondents had a different perspective on nearly all aspects of access and responsiveness, although generalizations are difficult to make with such a small number of respondents. More St. Albert respondents agree (77%) than M.D. respondents (66%) that the staff responded quickly and efficiently to them. None of the Edmonton respondents agreed with this statement. Although 64% of the St. Albert and 66% of the M.D. respondents felt that they had received the kind of help they needed, none of the Edmonton respondents agreed. Although there was a high level of agreement on whether or not the respondent's problem had improved, this decreased with distance from St. Albert at 83%, to the M.D. at 75% and Edmonton at 66%. The likelihood of responding "no" to using the program again also increased with distance.

Where respondents live did demonstrate some differences between the rural and urban settings. Those living in rural environments indicated that they would like to have a community mental health resource available to them. Their support of the Sturgeon as the right place to offer services may be as a complement to such a community site. Notwithstanding, with distance there was a decrease in the level of agreement that their mental health problem had improved and respondents' willingness to use the program again.

Table 27. The Impact of Place of Residence as Defined by Postal Code on Percentage of Agreement/Disagreement: Access Index (n=34)

	Urban				Rural	
	St. Albert (n=22)		Edmonton (n=3)		M.D. of Sturgeon (n=9)	
Access	A	D	A	D	A	D
Local help?*	70	30	-	100	50	50
Timely help?*	60	40	-	100	33	66
Right place?	91	9	33	66	100	-
Other place?	23	77	66	33	75	25
Easy access?	77	23	33	66	75	25
Quick?	77	23	-	100	66	33
Right help?	64	36	-	100	66	33
Better?	83	17	66	33	75	25
	N	Y	N	Y	N	Y
Admitted?	95	5	100	-	100	-
Know before?	86	14	100	-	100	-
Use next time?	18	82	33	66	22	78

Note 1: * Eight respondents had not experienced the use of mental health services in the community so were asked to skip questions 3 and 4. N=26 for these two variables in this table.

Note 2: - depicts empty cells, no responses reported.

The Satisfaction Index.

Respondents living in St. Albert (71%) and the M.D. of Sturgeon (66%) were most likely to use the mental health program again in the future, whereas the Edmonton respondents were least likely to use the services. This finding is not surprising as Edmonton respondents have more choices available to them for mental health services than do those living in St. Albert and the M.D.

Geography also impacts response regarding the availability of timely mental health services within the community with 68% of St. Albert respondents agreeing with this statement and 66% of M.D. respondents reporting disagreement. St. Albert respondents have Alberta Mental Health Services as well as the Sturgeon as resources for mental health needs on a twenty-four hour basis. M.D. respondents may have an Alberta Mental Health Service office in their area, but those living at rural addresses do not have the same level of geographic access as do their urban counterparts. Interestingly, and notwithstanding the wider range of mental health service options in Edmonton, 100% of the Edmonton respondents disagreed that timely services were available to them in their community. M.D. respondents (63%) and St. Albert respondents (57%) agreed more often that the mental health program staff were helpful to them. Proximity to the program being offered and historical/cultural connections to the Sturgeon seem to influence the level of satisfaction with the program based on the geographical home of the respondents.

Table 28. The Impact of Place of Residence as Defined by Postal Code on Percentage of Agreement/Disagreement Regarding the Satisfaction Index (n=34)

	Urban				Rural	
	St. Albert (n=22)		Edmonton (n=3)		M.D. of Sturgeon (n=9)	
Satisfaction	A	D	A	D	A	D
Use again?	71	19	33	66	66	33
Last year?	68	32	-	100	33	66
Help rec'd!	57	43	33	66	63	37
	N	Y	N	Y	N	Y
<2 weeks?	68	32	66	33	77	23

Note 1: "Use again?" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with seeking the Sturgeon again in the future for similar needs and mental health services. This meaning has been reflected in the transposition of data for this and subsequent tables.

Note 2: - depicts empty cells, no responses reported.

The Outcomes Index.

The Edmonton respondents reported the highest incidence of being seen for mental health problems more than five times in the past, with St. Albert in the midrange at 45% and the M.D. at 37%. Respondents living in the M.D. and St. Albert reported between two and five visits 37.5% and 31% of the time respectively. Proximity to the Sturgeon is reflected in the finding that 66% of St. Albert, 55% of the M.D. and 33% of the Edmonton respondents felt that they could easily reaccess services at the Sturgeon if they needed to do so. Respondents in the M.D. agreed most often that the mental health

program staff helped them with their problem at 66% agreement, with St. Albert following at 53% agreement. None of the Edmonton respondents agreed with this item. Respondents form the M.D. and St. Albert found the mental health program staff helpful most often at 77% and 76% respectively, while Edmonton respondents agreed only 33% of the time. Further, overall satisfaction with services is also highest in the M.D. at 66%, followed by St. Albert at 62% and Edmonton at 33%.

As might be expected due to geographical access and possible income factors, none of the respondents in the M.D. reported current ongoing counseling, whereas 27% of St. Albert respondents and 33% of Edmonton respondents are receiving such services. Edmonton respondents may be different in that they do not reflect the same populations than those found in the St. Albert and surrounding area.

Table 29. The Impact of Place of Residence as Defined by Postal Code on Percentage of Agreement/Disagreement Regarding the Outcomes Index (n=34)

	Urban				Rural	
	St. Albert (n=22)		Edmonton (n=3)		M.D. of Sturgeon (n=9)	
Outcomes	A	D	A	D	A	D
Reaccess?	66	33	33	66	55	45
Success?	53	47	-	100	66	33
Quicker!	57	43	50	50	55	45
Helpful!	76	24	33	66	77	23
Satisfied!	62	38	33	66	66	33
	N	Y	N	Y	N	Y
More help?	73	27	66	33	100	-
>8 weeks?	59	41	66	33	33	66

Note 1: - depicts empty cells, no responses reported.

Severity of Illness - Client Defined (SOIC) Effects

The Access Index.

43% of respondents with the highest SOIC rating (4.5-5) agreed that they were able to get help when they needed it in their community, however only 32% agreed that they could get this help within 12 to 24 hours. This level of agreement suggests that there are mental health needs in the community that are currently not being met. These same respondents were most likely to disagree (61%) that mental health services would be better provided in another community clinic. This is supported in turn by the finding

that the respondents with high self defined needs expect to be assisted in a hospital setting (91% agreement that the Sturgeon is the right place). 74% of the respondents with SOIC of 4.5 or greater agreed that it was easy to get in touch with the staff and 78% of those felt that they were responded to quickly and efficiently. 67% of these respondents felt that they had received the kind of help they needed and 78% would use the mental health program again.

These findings suggest that the more acutely in need the respondent felt (SOIC of 4.5 or greater) when they used the services, the more likely they were to report increased satisfaction with access and impact. The original premise of the program was to deal effectively with individuals experiencing a situational or time limited, self defined crisis. The intent of the program then seems to be supported by the high level of SOIC reported by the respondents, who believed they were in a significant state of need at the time they accessed the program.

Table 30. Reported SOIC and Level of Agreement/Disagreement in Percentages (Frequencies) on the Access Index (n=32)

SOIC	low (1.0) (n=2)		moderate (3.0 - 4.0) (n=7)		severe (4.5 - 5.0) (n=23)	
Access	A	D	A	D	A	D
Local help?	50(1)	50(1)	71(5)	29(2)	43(10)	57(13)
Timely help?*	50(1)	50(1)	66(4)	33(2)	32(7)	67(15)
Right place?	50(1)	50(1)	86(6)	14(1)	91(21)	9(2)
Other place?	100(2)	-	29(2)	71(5)	39(9)	61(14)
Easy access?	-	100(2)	86(6)	14(1)	74(17)	26(6)
Quick?	-	100(2)	57(4)	43(3)	78(18)	22(5)
Right help?	-	100(2)	57(4)	43(3)	67(15)	32(7)
Better?**	50(1)	50(1)	66(4)	33(2)	90(18)	10(2)
	N	Y	N	Y	N	Y
Admitted?	100(2)	-	100(7)	-	96(22)	4(1)
Know before?	100(2)	-	100(7)	-	91(21)	9(2)
Use next time?	50(1)	50(1)	14(1)	86(6)	22(5)	78(18)

Note 1: * n=30; **n=28.

Note 2: Cells containing SOIC levels of 1.5, 2.0, and 2.5 were empty and are not included in this table. Data has been grouped into three severity indices for the purposes of this table as follows: low - 1.0; moderate - 3.0 - 4.0; and severe - 4.5 - 5.0.

Note 3: - depicts empty cells, no response reported.

The Satisfaction Index.

Thirty respondents rated their SOIC at 3 or greater. Of these, twenty-one (70%) reported that they would use the Sturgeon again for help with a similar mental health problem. Those respondents with a ranking of 3 - 4 generally agreed (86%) that over the past year they could access community based mental health services (including the Sturgeon program). Conversely, those at the highest severity level of 4.5-5 felt they could not with only 43% agreement on this item. The nature and severity of the situational crisis the respondent was dealing with at the time of their visit may have affected their ability to examine and explore for alternate service options.

Though respondents in general agreed they were helped by the staff, as SOIC increases, the level of agreement increases to 61% at an SOIC of 4.5-5. It appears that those respondents who rated themselves as the highest need clients received the most benefit and satisfaction from the mental health program staff and the related intervention.

There was no report of revisit to a mental health agency within the two weeks prior to the Sturgeon visit by any respondent with an SOIC of under 3. Those with an SOIC of over three reported such visits an average of 29% of the time. For about a third of this group the Sturgeon visit was at least the second occasion of contact with the mental health system within a two week time period. Of note is the finding that the presence or absence of medications as defined in the scope of this variable showed no demonstrable pattern relevant to respondents' rating of SOIC.

Table 31. Reported SOIC and Level of Agreement/Disagreement in Percentages (Frequencies) on the Satisfaction Index (n=32)

SOIC	low (1.0) (n=2)		moderate (3.0 - 4.0) (n=7)		severe (4.5 - 5.0) (n=23)	
Satisfaction	A	D	A	D	A	D
Use again?	50(1)	50(1)	57(4)	43(3)	74(17)	26(6)
Last year?*	-	100(2)	86(6)	14(1)	43(9)	57(12)
Help rec'd!	50(1)	50(1)	43(3)	57(4)	61(14)	39(9)
	N	Y	N	Y	N	Y
<2 weeks	100(2)	-	71(5)	29(2)	70(16)	30(7)

Note 1: * n=30.

Note 2: Cells containing SOIC levels of 1.5, 2.0, and 2.5 were empty and are not included in this table. Data has been grouped into three severity indices for the purposes of this table as follows: low - 1.0; moderate - 3.0 - 4.0; and severe - 4.5 - 5.0.

Note 3: "Use again" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with seeking the Sturgeon again in the future for similar needs and mental health services. This meaning has been reflected in the transposition of data for this and subsequent tables.

Note 4: - depicts empty cells, no response reported.

The Outcomes Index.

Of all respondents reporting system access of more than five times in the past, only 31% reported an SOIC of 5 for their visit to the Sturgeon. As the SOIC rises over 4.5, the level of disagreement is 45% that services can be reaccessed quickly and easily,

as does whether or not the mental health program staff helped the respondent to manage their problem successfully (52%) and whether or not they agreed that the staff needed to respond more quickly to them (56%). At the same time, the level of agreement that the mental health program staff helped them was high (78%). It is of note that a low SOIC (< 3) produced a different picture, where 50-100% of the respondents agreed on all of these items.

It appears that as the sense of crisis increased (as evidenced by the reporting of an SOIC of 4.5 or greater), there was an attendant increased sense of urgency for assistance that is timely and specifically targeted towards the individual respondent's particular mental health need. This is in turn reflected in the level of agreement or satisfaction with the outcomes of the services provided.

All respondents who reported receiving ongoing help at the time of the survey recorded their SOIC at 4 or greater. Of those who had been seen in another mental health agency in the past eight weeks, 43% had reported an SOIC of 4.5 or greater. It may be concluded from these findings that an SOIC of 4.5 or greater may be a critical indicator of outcomes.

Table 32. Reported SOIC and Level of Agreement/Disagreement in Percentages (Frequencies) on the Outcomes Index (n=32)

SOIC	low (1.0) (n=2)		moderate (3.0 - 4.0) (n=7)		severe (4.5 - 5.0) (n=23)	
Outcomes	A	D	A	D	A	D
Reaccess?	50(1)	50(1)	57(4)	43(3)	61(14)	39(9)
Success?*	-	100(2)	57(4)	43(3)	52(11)	48(10)
Quicker!	50(1)	50(1)	43(3)	57(4)	56(13)	44(10)
Helpful!	50(1)	50(1)	71(5)	29(2)	78(18)	22(5)
Satisfied!	50(1)	50(1)	43(3)	57(4)	65(15)	35(8)
	N	Y	N	Y	N	Y
More help?	100(2)	-	86(6)	14(1)	83(19)	17(4)
>8 weeks?	50(1)	50(1)	71(50	19(2)	57(13)	43(10)

Note 1: *n=28.

Note 2: Cells containing SOIC levels of 1.5, 2.0, and 2.5 were empty and are not included in this table. Data has been grouped into three severity indices for the purposes of this table as follows: low - 1.0; moderate - 3.0 - 4.0; and severe - 4.5 - 5.0.

Note 3: - depicts empty cells, no response reported.

Medication History Effects

The Access Index.

Crosstabulations indicated that levels of agreement or disagreement on each of the variables were proportionally equivalent or equal whether or not the respondent was on medications as previously defined at the time of the intervention visit. Although there were differences in the degree of agreement or disagreement, the directional trends were the same, whether or not the respondent was recorded to have been on relevant medications or not.

Notwithstanding, there was a relationship ($r = .3702$, $p < .040$; see Table 13) between the presence of relevant medication and how respondents felt about being able to access mental health services within their community within twelve to twenty four hours. Those respondents found to be on medication were more likely to agree that they had the ability to access services in 12 - 24 hours. This finding is not necessarily of significance in itself, because there could be many other reasons for this relationship to exist, including previous experiences and the diagnostic codes or comorbidities related to the respondent's medication as examples.

Table 33. Percentages/Frequencies of Agreement/Disagreement on the Access Index Based on Medication History (n=34)

Meds	No (n=18)		Yes (n=16)	
Access	A	D	A	D
Local help?***	65(11)	35(6)	56(9)	44(7)
Timely help?*	30(3)	70(7)	66(8)	33(5)
Right place?***	94(17)	6(1)	80(12)	20(3)
Other place?***	39(7)	61(11)	40(6)	60(9)
Easy access?***	76(13)	24(4)	69(11)	31(5)
Quick?	72(13)	28(5)	63(10)	37(6)
Right help?	61(11)	39(7)	56(9)	44(7)
Better?**	80(12)	20(3)	79(11)	21(3)
	N	Y	N	Y
Admitted?***	100(17)	-	94(15)	6(1)
Know before?***	88(15)	12(2)	94(15)	6(1)
Use next time?***	18(3)	82(14)	25(4)	75(12)

Note 1: *n=23 (due to 8 respondents with no previous experience to report), **n=29, ***n=33.

Note 2: - depicts an empty cell, no responses reported.

The Satisfaction Index.

Whether or not the respondents were on medications as previously defined affected their level of satisfaction with the Sturgeon as a place to seek help in the future.

78% of those not on medications and 47% of those on medications agreed that they would not seek future mental health services at the Sturgeon.

Respondents who were not on medications reported 83% of the time that they had not sought mental health services in the two weeks prior to their visit to the Sturgeon, compared to 56% of those on medications. Those not on medications were almost twice as likely to have accessed the Sturgeon as a first point of assistance than those who were on medications. It is not known whether this finding is relevant, as the medication data was based on retrospective chart review, which did not indicate the length of time the respondent had been taking the medication. Being on medication or not had no relationship to whether or not access was timely nor whether or not the mental health program staff had helped respondents.

Table 34. Percentages/Frequencies of Agreement/Disagreement on the Satisfaction Index Based on Medication History (n=34)

Meds	No (n=18)		Yes (n=16)	
Satisfaction	A	D	A	D
Use again?***	78(14)	22(4)	47(7)	53(8)
Last year?*	50(8)	50(8)	53(8)	47(7)
Help rec'd!**	59(10)	41(7)	53(8)	47(7)
	N	Y	N	Y
<2 weeks?	83(15)	17(3)	56(9)	44(7)

Note 1: *n=31, **n=32, ***n=33.
Note 2: "Use again" reflects a question worded in the negative, therefore disagreement on this item reflects agreement with the Sturgeon being the right place to offer mental health services. This meaning has been reflected in the transposition of data for this table.
Note 3: - depicts an empty cell, no responses reported.

The Outcomes Index.

Respondents who were found on chart review to be on medications represented 53% of those who had required mental health services more than five times in the past. Nonmedication respondents were somewhat more likely to agree (71%) that they were able to reaccess services at the Sturgeon easily and quickly if they needed them. They were also more likely to agree (59%) that they had been helped by the mental health program staff. As well, they agreed more often (66%) that they were satisfied overall with the services they had received. These respondents also reported that 33% of them had been seen at another mental health agency within the past eight weeks compared to 50% of those who were recorded to be on medications at the time of their visit to the Sturgeon.

Nonmedication respondents were more likely to report a single rather than multiple access. The nonmedication group was also different in that they responded "no" twice as often as "yes" to whether or not they had been seen at another mental health agency within the past eight weeks compared to the medication group.

There was no significant relationship between outcomes and medication, and there was no data on whether or not the respondents were on medications at the time of the survey. The differential diagnosis of the presenting mental health problem may also be a factor in these findings. As a result, they are of interest only in terms of potential further research opportunities.

Table 35. Percentages/Frequencies of Agreement/Disagreement on the Outcomes Index Based on Medication History (n=34)

Meds	No (n=18)		Yes (n=16)	
Outcomes	A	D	A	D
Reaccess?***	71(12)	19(5)	50(8)	50(8)
Success?*	59(10)	41(7)	43(6)	57(8)
Quicker!**	53(9)	47(8)	60(9)	49(6)
Helpful!***	72(13)	18(5)	80(12)	20(3)
Satisfied!***	66(12)	33(6)	53(8)	47(7)
	N	Y	N	Y
More Help?	72(13)	18(5)	88(14)	12(2)
>8 weeks?	66(12)	33(6)	50(8)	50(8)

Note 1: *n=31, **n=32, ***n=33.

Note 2: - depicts an empty cell, no responses reported.

Summary of Findings

This study demonstrates that the evaluation of a mental health services program based on access, satisfaction and outcomes can be influenced by demographic variables. The demographic variables found to have the most impact were income, education, age and medication profile, with less definitive impacts demonstrated by gender, place of residence and Severity of Illness - Client Defined. Severity of Illness - Provider Defined was not a meaningful variable.

An increased level of income of over $30,000 per annum was related to higher levels of education and influenced agreement that the Sturgeon was the right place to offer services, believing that they were assisted quickly and efficiently by the staff and feeling that their problem had improved. Conversely, income levels below $19,999 per annum were related to education at the junior high or high school levels, feeling that the Sturgeon was perhaps not the best place to offer mental health services in the community, feeling that they had not been managed quickly and efficiently by the staff and being less sure that their problem had improved.

Younger respondents were more likely to know how to access and reaccess the mental health system more easily than older respondents. Younger respondents were less likely to report satisfaction with services rendered in the youngest age group surveyed.

Female respondents were more likely to report a postsecondary education than males. Respondents reporting lower education levels were more likely to feel their problem had not improved and reported higher levels of access to the system in general, and to mental health agencies more often than one-on-one personal counseling services.

CHAPTER SIX

DISCUSSION OF FINDINGS AND CONCLUSION

The Research Questions Re-visited

The purpose of this descriptive evaluative study was to describe the impact of the Mental Health Services Crisis Intervention Program on people who used the service. Further the intent was to determine if there were any relationships between the age, sex, education, severity of illness and socioeconomic status of the people and their experiences with the program. This process was undertaken within the context of the PRECEDE-PROCEED Model (Green and Kreuter, 1991).

A number of hypotheses were developed from the questions. Although these could not be tested because of the low response rate, they nevertheless provided a framework for the analysis. The three indices; Access, Satisfaction and Outcomes promote interpretation of the findings.

Hypothesis # 1

The first hypothesis put forward stated that people who received services from the Mental Health Crisis Intervention Program would describe a positive self impact in terms of accessibility and satisfaction with the services they received. This hypothesis received some support, but is mitigated by the influences of several of the demographic variables. Respondents most likely to describe their experience with the program in terms of positive self impact were middle aged, middle income, educated females, who accounted for the majority of the respondents and represented one of the two major groups for whom the program was originally designed. The other major group, the

adolescent and young adult, could only be assessed through the data obtained from the young adult group. Again, the majority of these respondents were female, and this group reported a much lower level of satisfaction with access and a less positive self impact on the two indices than did their older counterparts. These respondents tended to report a lower educational and socioeconomic status, as did the male respondents. Male respondents reported a lower positive self impact, yet also supported the delivery of traditional mental health services more so than female respondents. Overall, lower socioeconomic status and education levels were also associated with a lower positive self-impact related to accessibility and satisfaction. These findings are consistent with those reported in the literature on socioeconomic status and health (Barer, Manga, Shillington & Siegel, 1982; Manga, 1987; Statistics Canada, 1993; Bowdler, 1993; Martin & Henry, 1993; Badgley, 1994; Labonte, 1994).

A positive self impact was reported most often by middle aged, middle income, well educated females. Overall, being younger in age and of lower socioeconomic status and education level was associated with lower positive self impact related to accessibility and satisfaction.

The needs of young adults and by inference adolescents require closer scrutiny in regard to the mental health program. The program may indeed be meeting the needs of some individuals with a time limited or situational crisis, but there may be a question of appropriateness of referral to the crisis program that needs to be addressed. Introducing the SOIC as part of the original assessment of clients presenting with mental health problems may be one suggestion.

In summary, the program which is the subject of this study is directed primarily towards the needs of women in mid life. The types of mental health services needed by young adults (and most likely adolescents) have not been accounted for adequately in the service design. There are in addition other groups of people using the mental health program whose needs have also not been adequately accounted. These findings are consistent with those reported in the literature related to alternative mental health services programming and crisis intervention (Slive, MacLaurin, Oakander & Amundsen, 1995; Holdsworth & Guy, 1994; Pinkerton & Rockwell, 1994; Carey & Siebert, 1993; Cohen & Tsemberis, 1992; Andereoli, Muehlebach, Gognolons, Abensur, Grimm & Frances, 1992; Brooks, Sanguinetti & Schwartz, 1992; Chiu & Primeau, 1991; Flynn, Lapointe, Wolfensberger & Thomas, 1991; Matulich & Finn, 1989; Cassileth, Walsh, Blake & Greenspan, 1987; Drummond, Stoddardt & Torrance, 1986; Neal, 1986; Friedman, 1985; Weil, 1984; Chan & Juzwishin, 1984; Stein & Test, 1980; Weisbrod, Test & Stein, 1980).

Hypothesis #2

The second hypothesis was outcome driven, in that it was expected that people would report both short term and longer term outcomes in which they demonstrated more self reliance. This was expected to result in a higher likelihood of ongoing care in community settings and a low incidence of inpatient hospitalization. Based on the sampling methodology, fifty-six individuals were repeat clients (18%), and two were multiple visits to a program designed for single, one time situational or crisis

interventions. The Outcomes Index was used to explore this hypothesis, as well as the variable in the Access Index, which asked whether or not the respondent's problem had improved.

In general, the group reporting a higher educational level and socioeconomic status reported a higher incidence of positive outcomes. They were more likely to have experienced improvement in their problem and were most likely to be receiving ongoing mental health support from a therapist in their community. They were less likely to seek mental health services through other agencies. These respondents tended to be in their middle years. The majority of these respondents lived in St. Albert, although some lived in the M.D. of Sturgeon.

Respondents reporting a low socioeconomic status tended to report a low incidence of positive outcomes. They were less likely to have experienced improvement in their problem, were more likely to be seeking episodic assistance through mental health agencies, and least likely to be seeing a therapist on an ongoing basis. Age was a factor in this group, with the majority being young adults. These respondents lived in both urban and rural environments.

One respondent out of 34 reported having been admitted to an inpatient psychiatric unit for the same mental health problem within the past eight weeks. Whether this finding is a reflection of the outcomes of the program or whether it is related to the difficulty accessing psychiatric beds in the region remains unknown. One of the intents of the program was to provide service so that inpatient hospitalization was reduced. Although this study does not address this factor well, the literature does support the use of this

type of programming for economic reasons (Keisler, 1982; Fenton, 1979; Herz, 1979; Endicott, 1978; Pasaminick 1967 as cited in Sharfstein, 1985; Stein & Test, 1980) as well as increased client satisfaction, productivity and reduced utilization of inpatient psychiatric facilities (Kelly & Beaven, 1991; Neal, 1986; Arce and Vergare, 1985; Friedman, 1985; Pang, 1985; Sharfstein, 1985; Weil, 1984; Keisler, 1982; Stein & Test, 1980; Weisbrod, Test & Stein, 1980).

Potential interactions between the demographic variables made it difficult to assess this hypothesis. The greatest influencing variable was place of residence, because the resources available to people living in the rural areas are very different from those living in urban settings. Time, distance, accessibility and the level of expertise of mental health professionals varies greatly between these settings, with rural environments offering fewer supports to people with mental health needs.

In summary, people of middle age and high socioeconomic status reported a higher level of positive outcomes, such as improvement in their problem and ongoing mental health support from a therapist, with less frequent contact with other agencies. People of younger age and low socioeconomic status experienced less improvement in their problem, were more likely to be seeking multiple agencies for help and least likely to be receiving ongoing one on one help. Time, distance and ease of access to community resources available to rural respondents are different than those available to urban dwellers. In terms of outcomes, the program is meeting the needs of the largest element of the population for which it was designed, which was the middle aged, middle to upper income female. The needs of young adults and the economically disadvantaged

are not being met as effectively and the program needs to be reexamined within this context.

Hypothesis #3

The third hypothesis was more specifically directed to the impact the Sturgeon program had on respondents based on the effects of the demographic variables. The demographic variables reflected internal and external forces, such as gender, personal attributes including education, place of residence, severity of illness and financial resources which in turn reflected the predisposing, enabling and reinforcing factors cited in the PRECEDE-PROCEED model (1991).

To examine the third hypothesis more thoroughly, several hypothetical statements were proposed. The following discussion relates to these statements.

Statement One: **Women will report higher scores in the areas of process and outcomes than will men.**

Based on gender, there were notable differences observed. Within the Access Index, women were more likely to self refer, suggesting that they may be more sensitive to their own needs and willing to seek such assistance. Women were also more selective about where they received services, and were more likely to prefer a community setting rather than a hospital setting for mental health services. Women were also more likely to be aware of community resources for mental health issues. These findings support the literature on health locus of control (McDowell, Black & Collishaw, 1988), and the effects of gender (Bushy, 1993; Dyches & Rushing, 1993; Hartweg, 1993; Rodriguez-Trias, 1992; Boeke, 1991; Rose, 1990; Rosen, 1990; Wood, 1989).

Although women did cite overall satisfaction with services received at the Sturgeon, they were more critical of the mental health program staff in terms of their responsiveness and helpfulness in dealing with the presenting mental health problem and client. Younger women and women in later middle age were less satisfied than their early middle aged counterparts on these items.

In relation to outcomes, women were more likely than their male counterparts to use the services of mental health agencies, yet they tended not to be seeking one on one counseling with a therapist as often as the men. The men in the study tended to cite multiple referral sources, including those of physicians and police. Police referrals may be considered as mandated because these individuals are physically brought into the Emergency Department by a police officer. As previously cited, there are effects of other demographic variables that impact these findings, as the women in the study were also more likely to have higher education and lower socioeconomic status than the men. As well, the small community setting in which mental health services are offered may also have a confidentiality issue present which was also not explored in the study, and may make a difference to whether or not these women are willing to seek counseling because they may personally know the resource people.

Women did report higher levels of agreement on process variables than did the men. On outcomes variables men reported higher levels of agreement than did women.

In summary, women were more likely to self refer, preferred a community setting and demonstrated a higher awareness of community resources than did men. Although women were more often satisfied with the services they received, their expectations of

the staff were higher. Women were more likely to seek multiple sources of assistance and less likely to seek one on one help than were men.

Statement Two: **There will be more women than men represented in the sample.**

This statement was developed before the target population was identified and the sample selected. Based on the demographic information previously cited, the population ratio of males to females in the geographic area is 49:51. Notwithstanding the original sample selection ratio of male to female at 32:68, the response rate was 23:76, indicating that there were disproportionately more females than males in the sample, as expected. The differences in the method of referral to the program, or how men and women access mental health services cited are one possible explanation for this finding.

Statement Three: **Age will not be a determinant force in access, satisfaction or outcomes.**

Age was a very important determinant in all three indices. There were three discrete groups represented in this study. The younger age group was generally dissatisfied with the ability to access services in a timely manner, were not supportive of mental health services in the hospital setting, and did not feel that their needs were met in a timely or efficient manner by the staff. They felt that services were better situated in the community setting, and that they needed different services from those which had been provided. They also were more likely to report that they had not had any improvement in their mental health problem, were likely to seek contact with another agency subsequent to their Sturgeon visit but were similar to the other age groups in seeking one on one

counseling services. These people were also less well educated and less financially secure than their older counterparts.

The older middle aged group (46-55 year olds) shared most of the concerns of the younger age group when it came to satisfaction and some of the outcomes, but were more likely to support the Sturgeon as the principal source of mental health services along with community resources. They also reported slightly higher levels of overall satisfaction with services, even though they were not well satisfied with the individual services received from the mental health staff.

The other age groups shared some of these issues, but not to the extent of the two cited. The age groups that the program serves best are the 26-45 year old and over 55 year old groups. Respondents in these age groups generally reported the highest levels of agreement on the access, satisfaction and outcome indicators.

In summary, young adults had unmet needs in terms of timeliness and the nature of services delivered. In addition, they wanted services in the community setting and were least likely to report improvement. The older age group agreed with the young adults for the most part excepting location. The older adults preferred the Sturgeon as the best site for services. The program seems to best serve the needs of the middle and oldest adult age groups. The age of prospective clients must be considered in the development of the program in terms of their immediate and longer term needs. These findings support the view in the literature that there are significant differences between the attitudes and beliefs of younger people as compared to their older counterparts (Statistics Canada, 1989).

Statement Four: **People living in rural areas will report less satisfaction with access, more satisfaction with the crisis intervention services and less success in short and longer term outcomes.**

The respondents living in rural areas were those living in the Municipal District of Sturgeon. These people did indeed report a higher level of agreement on the indices of Access, Satisfaction and Outcomes.

Rural respondents indicated that they believed that the Sturgeon was a valuable resource for mental health problems. Notwithstanding, they also indicated that they would like to have local community services as an adjunct to the services offered at the Sturgeon. The lower reported satisfaction level with timeliness of service in terms of access for this group and the previously noted decrease in levels of satisfaction and reported positive outcomes for respondents support this finding. In addition, this group reported 100% of the time that they were not receiving any ongoing mental health support or counseling.

Satisfaction levels for this group regarding services received was higher than their counterpart urban groups. They were more likely to express higher levels of satisfaction with the assistance rendered by the mental health program staff as well as overall satisfaction with the program.

In summary, rural residents reported that they valued the Sturgeon as a resource, but had unmet needs for community based services where they lived. Rural residents were less satisfied, had less access and lower positive outcomes. None of these people were receiving ongoing help for their problem.

Based on this discussion, the fourth hypothetical statement is considered accurate for this sample. Investment into community based resources for the rural population is an area to be explored.

Statement Five: **People with lower levels of socioeconomic status (as measured by income and level of education) will be less satisfied with access, be more satisfied with the services received and report less success in short and longer term outcomes.**

Socioeconomic status as described in the literature was assumed to be a function of corresponding incremental education and income levels (Barer, Manga, Shillington & Siegel, 1982; Manga, 1987; Statistics Canada, 1993; Bowdler, 1993; Martin & Henry, 1993; Badgley, 1994; Labonte, 1994). That is, as education levels increased, so should annual family income levels. The moderate positive correlation between education and family income found validates this assumption. Respondents with less than a post secondary education were more likely to report incomes of less than $19,999 per annum. Those with a post secondary level education were more likely to report an annual family income of over $20,000.

The findings support two parts of this statement, that of less satisfaction with access and less success in outcomes for those respondents reporting both an education at less than post-secondary levels and an income of under $19,999 per annum. The premise that these people would be more satisfied with the services received proved to be incorrect. This finding may support the position taken that the system is in transition of viewing consumers as customers rather than patients, and the people are ready for this

change. This premise is consistent with that supported in the literature (Drucker, 1994; Alberta Health, 1992, 1993; Canadian Mental Health Association, 1992; Jimerson, 1986). This group preferred not to have twenty-four hour mental health services based at the Sturgeon, were less satisfied with the services received there, reported less satisfaction with the nature of help provided and were less likely to use the Sturgeon again in the future. Further, they were more likely to prefer a community setting for mental health services and reported the highest agreement that resources were available to them in the community. Their overall satisfaction was also lower. This group also reported less frequent ongoing mental health counseling, although they also reported the highest utilization of other mental health agencies within the past eight weeks. It would appear from this discussion that the current mental health service delivery system is not geared towards clients that meet this demographic profile.

The literature on client satisfaction does not provide much direction on the meaning of these findings, although there is affirmation of timeliness and efficiency as core indicators for satisfaction (McMillan, Younger & DeWine, 1986; Lemke, 1987; McMillan, 1987; Davis & Hobbs, 1989; Conbere, McGovern, Kochever & Widfeldt, 1992; Gerber, Calvert & Smylie, 1992; Megivern, Hann & Jones, 1992). The difficulty of an adequate operational definition of the term "satisfaction" defined by Bramadat and Dreidger (1993) remains. There was confirmation of less satisfaction with access and less success in outcomes in low socioeconomic respondents. The preference for this group was for community rather than hospital based services. This group had the lowest satisfaction with services they did receive, the highest reported utilization of other

agencies and the lowest utilization of one on one counseling. The inference is that the current program is not designed to meet these clients most pressing mental health needs.

In summary, there is no question that both internal and external forces such as those described impact the way in which people described their experiences and expectations of the intervention they received at the Sturgeon through the Mental Health Crisis Intervention Program. The impact of demographic variables must be taken into consideration when planning and implementing a new health services program. It is therefore important to consider the contexts within which the population to be served exists, as well as the health professional expert judgment and the needs assessments performed by sister and municipal agencies.

Process and Impact Evaluation: PRECEDE-PROCEED (1991) Model

Discussion of Process and Impact Evaluation in Relation to the Sturgeon General Hospital Mental Health Crisis Intervention Program

The evaluation of the Sturgeon General Hospital Mental Health Crisis Intervention Program has involved the use of the PRECEDE-PROCEED model (1991) on a partially retrospective basis. The model has assisted in the organization of information and the direction of the program from the following perspectives:

- relevance of the program within the context of regional mental health services
- credibility of the program with internal and external stakeholders
- fittingness of the approach within regional mental health initiatives
- sustainability of the program within the context of the community.

This study has dealt essentially with the first two levels of program evaluation within this model, those of process and impact evaluation (Phases 7 and 8). The objects of interest in this evaluation are the program itself in terms of whether or not the processes set up to address the original health/social deficit (Phase 1 - Social Diagnosis) have been effective and what the impact has been in terms of the predisposing, enabling and reinforcing factors (Phase 4 - Educational and Organizational Diagnosis), as well as the effects of demographic variables (Phase 2 - Epidemiological Diagnosis and Phase 3 - Behavioral and Environmental Diagnosis) in terms of the environment in which the program exists. Although some attempt has been made to look at the third level, that of outcomes (Phase 9), a more comprehensive look at this level requires longitudinal and more outcome focused research. The data retrieved from subjects regarding outcomes is inconclusive and subject to many influences which were not accounted for in the data collection instrument.

In regard to the process and impact levels, the levels of agreement in this small sample do not overwhelmingly support the program design or implementation on a global or generalist level. The predisposing, enabling and reinforcing factors related to the aggregates are differential and affect the perceptions of the subjects surveyed. There is some evidence to suggest that the predisposing factors such as diversity of background, place of residence, socioeconomic status and health history, attitudes, beliefs and values are different between the aggregates. Further, enabling factors such as education, family income, and geography also vary between aggregates and affected the way subjects viewed their experience with the program. Positive reinforcing factors

suggested through the analysis process, such as the best location for the delivery of mental health services, are directly linked to the demographic profiles and are somewhat different for each of the grouped aggregates.

The Redefinition of the Health/Social Deficit

The target population for the program was very broad and generic in nature, and not surprisingly meets only selected aggregates needs, mainly middle aged women with middle socioeconomic backgrounds living in small urban and rural environments. As discussed previously in the Social (Phase 1) and Epidemiological Diagnoses (Phase 2), and Behavioral and Environmental Diagnosis (Phase 3) sections of Chapter 2, this aggregate represents a large proportion of the population served by the Sturgeon General Hospital. The program meets less effectively the needs of the other large aggregates, those of lower socioeconomic status and the young adult. As these people represent one of the core targets for the program, the findings of this study suggest that effectiveness at the process and impact levels for these groups needs closer examination. The revision of service delivery mechanisms and the establishment of partnerships with other mental health agencies may be required. Notwithstanding these comments, the current mandates of publicly funded mental health agencies are geared towards the needs of low socioeconomic aggregates. These programs do not account for the needs of higher socioeconomic backgrounds.

Although the original health/social deficit has been to some extent addressed on a global basis, through the process of program evaluation it has been refined by at least one level. Evidently there is a need to re examine the mental health program

acknowledging the needs of the younger adult, and possibly the adolescent age groups. In addition, recognition of the needs of the disadvantaged in more concrete terms is required. An inclusive mental health needs assessment for this population is recommended. Vehicles such as consumer, inter-agency and provider focus groups targeted to age, gender and socioeconomic aggregates along with inclusive planning sessions to revamp the overall delivery of mental health services in the region may be used. This approach will take into account the differential predisposing, enabling and reinforcing factors (Educational and Organizational Diagnosis - Phase 4) that are critical to achieving a higher degree of success in service delivery. Service delivery decisions must be made (Phase 5 - Administrative Diagnosis) and implemented (Phase 6 - Implementation). These activities performed within the context of the PRECEDE-PROCEED (1991) model then cycle back through to the process of program evaluation (Phases 7-9, Process, Impact and Outcome Evaluation).

This study has been most useful in identifying refinements needed to the program based on the findings. These findings define more clearly population characteristics examined in the Social Diagnosis, Epidemiological Diagnosis, Behavioral Diagnosis and Educational and Organizational Diagnosis (Phases 1-4) originally undertaken in this paper. Administrative and Policy Diagnosis (Phase 5) takes into account these findings in making policy direction to address the program deficits, which takes the process into Implementation (Phase 6). This has been undertaken with the following actions:

- planning an integration of Alberta Mental Health Services and Sturgeon mental health Crisis Intervention Program services (both at Sturgeon and in the community) to provide for:
    1. child and adolescent mental health (CAMH-NET)
    2. QIC -- Quick Intervention Clinic - walk in, nonscheduled service
- opening dialogue with Family and Community Social Services (St. Albert) to explore the opportunity to integrate the Teen Suicide Prevention Teen Team as ongoing resources to teens and young adults
- opening dialogue with the schools to explore the opportunity to access professional resources and those of the Peer Support Teams
- opening dialogue with Aspen Regional Health Authority and member municipalities to look for opportunities to share resources on a community basis
- future recruitment of personnel educated to respond to the needs of younger clients

refinements are based on using the results of this study as indicators of potential predisposing, enabling and reinforcing factors in carrying on with the PRECEDE-PROCEED framework.

Based on the experience gained through this study, the instrument requires refinement and further testing. The addition of a qualitative piece on future program evaluation is recommended to seek information on the reasons for clients' reported satisfaction or dissatisfaction with the program.

Limitations of the Study

There are significant limitations to this study that must be noted. Limitations are extensive in terms of its internal and external validity. This is partly due to the nature of the evaluative design and the rapidly changing health care service delivery system in the Edmonton region.

Obtaining a representative sample was problematic. Mental health issues are an uncomfortable subject for many people. People with mental health problems remain marginalized and societal attitudes towards them tend to be negative. The experience of a low response rate, and the undertakings associated with obtaining even a small sample of thirty-four respondents was extremely challenging. The high nonresponse rate calls into question whether or not the sample was representative, as the investigator's experience in dealing with health care consumers suggests that subjects self select more often when they either have a very good or a very bad experience. The time delay in accessing those clients who were seen 12 to 14 months previously meant that these people were operating on recall. As a result their perceptions of outcomes may have been blunted by time and distance.

Although a test retest pilot of the data collection instrument to examine for validity and reliability was attempted on a sample of thirty, it was unsuccessful due to a 6% response rate. As a result, the instrument cannot be considered as either valid or reliable. The instrument needs significant redesign and validation.

The small sample size severely limited the opportunities for data analysis to simple descriptive measures for the most part. Where is was possible to perform

crosstabulations, the presence of empty cells limited the usefulness of some of the data analysis and the results therefore viewed with caution. Though it was hoped that there would be an opportunity for the establishment of meaningful relationships between independent and dependent variables, this was not possible due to the data limitations.

Fundamental, fiscally driven changes to health delivery services in Region 10 were in process during the time of the data collection, and were receiving a high degree of negative media coverage. These factors may have had a significant impact on respondents during the time they were being surveyed.

The results are applicable only to the population served by the Sturgeon General Hospital and must be considered with caution for these reasons. A refined and valid longitudinal study is recommended in the areas of process, impact and outcomes.

Conclusion

The process of program evaluation is complex and multifactorial. The use of a model such as the PRECEDE-PROCEED (1991) model is of assistance in approaching both program design and evaluation in a meaningful and measurable manner. Even within the limitations cited, the Sturgeon General Hospital Mental Health Services Crisis Intervention Program is a valuable resource to the community it serves. Even so it requires re-examination and revision to better meet the needs of its constituents. The experience of conducting this study has added to the knowledge base for planning of future service delivery.

This project and its evaluation are of particular relevance to nursing. The project itself was conceptualized, planned and implemented by a Registered Nurse, working in

collaboration with other health disciplines and community resources. The program is delivered on a multidisciplinary basis, with no formal physician liaison or control. The program is the subject of much interest by other human service agencies as a model for nontraditional service delivery, especially in rural environments. Evaluation is a critical element to the continuance and validation of the programming strategy. With the current and future changes to service delivery methodology, the opportunity for nursing to demonstrate an alternative model and a commitment to evaluation from the outset is of particular value to nursing practice, administration, research and education.

References

Abramowitz, S., Cote, A.A. & Berry, E. (1987). Analyzing patient satisfaction: a multianalytic approach. QRB, 13(4). pp.122-130.

Alberta Health. (1991). Response to rainbow report released-"partners in health". Edmonton, Alberta: Communications Branch.

Alberta Health. (1992). Health agencies forum. Health Vision, 1(2).

Alberta Health. (1992). Strategic planning sessions set for health reform process. Health Vision, 1(3).

Alberta Health. (1993). Emergency Workload Assignment Code List.

Alberta Health. (1993). Future directions for mental health services in Alberta.

Alberta Health. (1993). Working in partnership: building a better future planning advisory committee. Edmonton, Alberta: Author.

Andreoli, A.V., Muehlebach, A., Gognolons, M., Abensur, J., Grimm, S. & Frances, A.J. (1992). Crisis intervention response and long-term outcome: a pilot study. Comprehensive Psychiatry, 33(6). pp 388-396.

Arce, A.A., & Vergare, M. (1985). An overview of community residences as alternatives to hospitalization. The Psychiatric Clinics of North America, 8(3). pp. 423-435.

Badgley, R.F. (1994). Health promotion and social change in the health of Canadians. In Pederson, O'Neill & Rootman (ed.) Health Promotion in Canada. Toronto: Saunders.

Barer, M.L., Manga, P., Shillington, R. & Siegel, G. (1982). Income class and hospital use in Ontario. Toronto: Ontario Economic Council.

Basch, C.E., Sliepcevich, E.M., Gold, R.S., Duncan, D.F. & Kolbe, L.J. (1985). Avoiding Type III errors in health education program evaluations: a case study. Health Education Quarterly, 12 (4) pp 315-331.

Boeke, A. (1991). Beyond reproduction - a paradigm shift in women's health. JOGNN, 20 (1) pp 12 & 13.

Borgstede, A. (undated, ?1973). St. Albert - a pictorial history. St. Albert: St. Albert Historical Society.

Botz, C.K. (1991). Principles for funding on a case mix basis: construction of case weights (RIWs). Healthcare Management Forum, Winter. pp. 22-32.

Botz, C.K. & Keeler, B. (1989). Calculating inpatient/CMG. Dimensions in Health Services, October. pp. 18-21.

Bowdler, J.E. (1993). Health problems of the homeless in America. In B.W. Spradley (ed.) Readings in Community Health Nursing 4th ed. Philadelphia: Lippincott.

Bramadat, I.J. & Drieger, M. (1993). Satisfaction with childbirth: theories and methods of measurement. Birth: 20(1). pp. 22-29.

Brink, P.J. & Wood, M.J. (1988). Basic steps in planning nursing research: from question to proposal. Boston: Jones-Bartlett.

Brink, P.J. & Wood, M.J. (ed.) (1989). Advanced design in nursing research. Newbury Park: Sage Publications.

Brooks, M.O., Sanguineti, V.R. & Schwartz, S.L. (1992). Providing shot-term intensive treatment in public psychiatry. Hospital and Community Psychiatry, 43(1). pp 74 & 75.

Bushy, A. (1993). Rural women - lifestyle and health status. Nursing Clinics of North America, 28(1) pp 187-196.

Cameron, M. (1991). Justice, caring and virtue. Journal of Professional Nursing, 7(4), 206.

Canadian Mental Health Association. (1992). Health care reform may better serve the mentally ill. Viewpoints, 3(1).

Canadian Mental Health Association. (1992). Individual supports system action plan. Alberta, Canada.

Carey, R.G. & Seibert, J.H. (1993). A patient survey system to measure quality improvement: questionnaire reliability and validity. Medical Care, 31(9). pp. 834-845.

Cassearreal, K.M., Mills, J.I. & Plant, M.A. (1986). Improving service through patient surveys in a multihospital organization. Hospital and Health Services Administration, 31(2). pp. 41-52.

Cassileth, B., Walsh, W., Blake, A. & Greenspan, J. (1987). Satisfaction surveys found to be deceptive. Hospitals, 61(8). pp. 53 & 54.

Chan, C. & Juzwishin, W.M. (1984). Patient surveys-an administrative tool. Health Care, 26(5). pp. 22 & 23.

Chiu, T.L. & Primeau, C. (1991). A psychiatric moblie crisis unit in New York city: description and assessment, with implications for mental health care in the 1990s. The International Journal of Social Psychiatry, 37(4). pp 251-258.

City of St. Albert. (1992). 1992 consumer survey. Economic Development: St. Albert.

City of St. Albert. (1993). Human services needs assessment. Economic Development: St. Albert.

City of St. Albert. (1993). 1993 civic census reports. St. Albert: unpublished.

Clemenhagen, C. & Champagne, F. (1982). A patient satisfaction survey in a hospital-based ambulatory care setting. Health Management Forum, 3(4). pp. 55-68.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Cohen, N.L. & Tsemberis, S. (1991). Emergency psychiatric intervention on the street. New Directions for Mental Health Services, 52 pp 3-16.

Conbere, P.C., McGovern, P., Kochevar, L. & Widfeldt, A. (1992). Measuring satisfaction with medical case management: a quality improvement tool. AAOHN Journal, 40(7). pp. 333-341.

Cook, T.D. & Campbell, D.T. (1979). Quasi-experimentation: design and analysis issues for field settings. Boston: Houghton-Mifflin.

Curtin, L.L. (1992). Parental rights: who pays the price? Nursing Management, 23 (1), 26, 28 & 30.

Curtin, L.L. (1992). Control and the whistleblower. Nursing Management, 24(5), 33& 34.

Davis, A. J. (1991). Ethical issues in nursing research: the allocation of health care resources. Western Journal of Nursing Research, 13(1), 136-137.

Davis, D. & Hobbs, G. (1989). Measuring outpatient satisfaction with rehabilitation services. QRB, 15(6). pp. 192-197.

Dimond, M. (1993). Health care and the aging population. In B.W. Spradley (ed.)Readings in Community Health Nursing 4th ed. Philadelphia: Lippincott.

Dobson, D. (1980). Avoiding Type III error I program evaluation : results from a field experiment. Evaluation and Program Planning, 3 pp 269-276.

Doering, E.R. (1983). Factors influencing inpatient satisfaction with care. QRB, 9(10). pp.291-299.

Drucker, P. (1984). The age of social transformation. The Atlantic Monthly, 274(5), pp. 53-56, 59,62,64,66-68,71,72,74-78, 80.

Drummond, M.F., Stoddart, G.L. & Torrance, G.W. (1986). Methods for the economic evaluation of health care programmes. Oxford: Oxford Medical Publications.

Dyches H. & Rushing B. (1993). The health status of women in the world-system. International Journal of Health Services, 23(2) pp 359-71.

Eakin, J.M. (1974). Care of the unwanted: stroke patients in a Canadian hospital. In Coburn, D'Arcy, Torrance & New (ed.) Health and canadian Society-Sociological Perspectives 2nd ed. 1987. Markham: Fitzhenry & Whiteside.

Elbeck, M. (1987). An approach to client satisfaction measurement as an attribute of health service quality. Health Care Management Review, 12(3). pp. 47-52.

Endicott, J., Herz, M.I., and Gibbon, M. (1978). Brief versus Standard Hospitalization: The Differential Costs. American Journal of Psychiatry, 135: 707 - 712.

Faid Holmgren Alliance. (1992). Human services needs assessment report. St.Albert: City of St. Albert Chamber of Commerce.

Fenton, F.R., Tessier, L., and Stuening, E.L. (1979). A Comparative Trial of Home and Psychiatric Care: One Year Followup. Archives of General Psychiatry, 36: 1073 - 1079.

Fitts, Sr. M.P. (1987). Hands to the needy: Marguerite d'Youville-apostle to the poor. New York: Doubleday.

Flynn, R.J., LaPointe, N., Wolfensberger, W. & Thomas, S. (1991). Quality of institutional and community human service programs in Canada and the United States. Journal of Psychiatry & Neuroscience, 16(3). pp. 146-153.

Fowler, F.J. (1993). 2nd ed. Survey research methods. Newbury Park: Sage.

Frey, J.H. (1989). 2nd ed. Survey research by telephone. Newbury Park: Sage.

Friedman, R. S. (1985). Resistance to alternatives to hospitalization. The Psychiatric Clinics of North America, 8(3). pp. 471-481.

Gerber, G.J., Calvert, B.L. & Smylie, J.A. (1992). Program outcome and QA: a new approach to evaluation. Leadership, November/December.

Glazer, N.Y. (1988).Overlooked, overworked: women's unpaid and paid work in the health services'"cost crisis". International Journal of Health Services, 18(1) pp 119-37.

Goldsmith, G.A. (1983). Patient satisfaction with a family practice clinic: comparison of a questionnaire and an interview survey. The Journal of Ambulatory Care Management, 6(2). pp. 24-31.

Gottschalk, J. (1991). Said another way: seeing the world through different lenses. Nursing Forum, 26(2), 30-35.

Green, L.W. & Kreuter, M.W. (1991). Health promotion planning - an educational and environmenal approach. Toronto: Mayfield Publishing.

Green, L.W. (1994). Canadian health promotion: an outsider's view form the inside. In Pederson, O'Neill & Rootman (ed.) Health Promotion in Canada. Toronto: Saunders.

Green, L.W., Kreuter, M.W., Deeds, S.G., & Partridge, K.B. (1980). Health education planning - a diagnostic approach. Toronto: Mayfield Publishing.

Hartweg, D.L. (1993). Self-care actions of health middle-aged women. Nursing Research 42(4) pp 221-227.

Herz, M.I., Endicott, J., and Gibbon, M. (1979). Brief Hospitalization: Two Year Followup. Archives of General Psychiatry, 36: 701 - 705.

Holdsworth, N. & Guy, W. (1994). Problems of service assessment *ab intra*: research and evaluation relating to a new early intervention community psychiatric nursing service. Journal of Advanced Nursing, 19 pp 290-298.

Jacobs, P. & Hall, E.M. (1994) Key operating and financial ratios for Alberta hospitals. Healthcare Management Forum, 7(1). pp. 19-23.

Jacobs, P.& McPherson, A. (1993). Introduction. Journal of Ambulatory Care, June. pp. v-viii.

Jacobs, P., Hall. E.M., Lave, J.R. & Glendinning, M. (1992). Alberta's acute care funding project. Healthcare Management Forum, 5 (3). pp. 4-11.

Jimerson, S.S. (1986). Expanded practice in psychiatric nursing. Nursing Clinics of North America, 21(3). pp. 527-535.

Kay, B.J., Butter, I.H., Chang, D & Houlihan, K. (1988). Women's health and social change. International Journal of Health Services, 18(2) pp 223-236.

Keisler, C. (1982). Mental Hospitals and Alternative Care: Non-Institutionalization as Potential Public Policy for Mental Patients. American Psychology, 37: 349 - 359.

Kelly, J., & Beaven, J. (1986). Establishing therapeutic program in the public sector psychiatric hospital: rethinking the possibilities and priorities. Journal of Psychosocial Nursing, 29 (8). pp. 19-25.

Labonte, R. (1994). Death of program, birth of metaphor: the development of health promotion in Canada. In Pederson, O'Neill & Rootman (ed.) Health Promotion in Canada. Toronto: Saunders.

Lemke, R. W. (1987). Identifying consumer satisfaction through patient surveys. Health Progress, 68(2). pp. 56 & 57.

Linn, M.W., Linn, B.S. & Stein, S.R. (1982). Satisfaction with ambulatory care and compliance in older patients. Medical Care, XX(6). pp. 606-614.

Manga, P. (1987). Equality of access and inequalities in health status: policy implications of a paradox. In In Coburn, D'Arcy, Torrance & New (ed.) Health and canadian Society-Sociological Perspectives 2nd ed. Markham: Fitzhenry & Whiteside.

Martin, M.E. & Henry, M. (1993). Cultural relativity and poverty. In B.W. Spradley (ed.) Readings in Community Health Nursing 4th ed. Philadelphia: Lippincott.

Mason, R.J., Lind, D.A. & Marchal, W.G. (1991). 3rd ed. Statistics: an introduction. Philadelphia: Harcourt Brace Jovanovich College Publishers.

Matulich, E. & Finn, D.W. (1989). Determinant criteria in patient satisfaction surveys. Journal of Ambulatory Care Management, 12(3). pp. 45-51.

McDowell, I., Black, A. & Collishaw, N. (1988). The Healthstyles health promotion program: description and behavioral outcomes. Canadian Journal of Public Health, 79 pp 447-454.

McMillan, J. R. (1987). Measuring consumer satisfaction to improve quality of care. Health Progress, 68(2), pp. 54 & 55, 76, 78 & 80.

McMillan, J.R., Younger, M.S. & DeWine, L.C. (1986). Satisfaction with hospital emergency department as a function of patient triage. The Health Care Management Review, 11(3), pp. 21-27.

McQueen, D. (1994). Health promotion research in Canada: a European/British perspective. In Pederson, O'Neill and Rootman (ed.) Health Promotion in Canada. Toronto: Saunders.

Megivern, K., Hann, M.A. & Jones, G. (1992). Measuring patient satisfaction as an outcome of nursing care. Journal of Nursing Care Quarterly, 6 (4), pp. 9-20.

Morrison, B.J., Rehr, H., Rosenberg, G. & Davis, S. (1982). Consumer opinion surveys: a hospital quality assurance measurement. Quality Review Bulletin, 8(2). pp. 19-24.

Munro, B.H. & Page, E.B. (1993). 2nd. ed. Statistical methods for health care research. Philadelphia: J.B. Lippincott.

Neal, M.J. (1986). Partial hospitalization: an alternative to inpatient psychiatric hospitalization. Nursing Clinics of North America, 21(3). pp. 461-471.

Neufeld, A. & Strang, V. (1992). Issues in the evaluation of small-scale adult day care programs. Int. J. Nurs. Stud., 29 (3), pp 261-273.

Norusis, M.J. (1993). SPSS for windows base system user's guide rel 6.0. Chicago: SPSS Inc.

O'Neill, M. & Cardinal, Health promotion in Quebec: did it ever catch on? In Pederson, O'Neill and Rootman (ed.) Health Promotion in Canada. Toronto: Saunders.

O'Neill, M. & Pederson, A. (1994). Two analytic paths for understanding Canadian developments in health promotion. In Pederson, O'Neill and Rootman (ed.) Health Promotion in Canada. Toronto: Saunders.

Pang, J. (1986). Psychiatric/mental health nursing. Nursing Clinics of North America, 8 (3). pp. 587-595.

Pinkerton, R.S. & Rockwell, W.J.K. (1994). Very brief psychological interventions with university students. College Health, 42 pp 156-162.

Polit, D.F. & Sherman, R.E. (1990). Statistical Power in Nursing Research. Nursing Research, 39 (6).

Pulakos, J. (1993). Two models of suicide treatment: evaluation and recommendations. American Journal of Psychotherapy, 47(4) pp 603-612.

Rodriguez-Trias, H. (1992). Women's Health, women's lives, women's rights. American Journal of Public Health, 82(5) pp 663-4.

Roos, N.P., Shapiro, E. & Roos, L.L. (1987). Aging and the demand for health services. In Coburn, D'Arcy, Torrance & New (ed.) Health and canadian Society-Sociological Perspectives 2nd ed. Markham: Fitzhenry & Whiteside.

Rose, J.F. (1990). Psychologic health of women: a phenomenologic study of women's inner strength. Advances in Nursing Science, 12(2) pp 56-70.

Rosen, M. (1990). Health maintenance strategies for women of different ages - an overview. Obstetrics and Gynecology Clinics of North America, 17(4) pp 673-694.

Schank, M.J. & Lawrence, D.M. (1992). Young adult women: lifestyle and health locus of control. Journal of Advanced Nursing, 18 pp 1235-1241.

Schoenfeldt, R.C., Seale, W.B. & Hale, A.W. (1987). Survey alerts hospital to needs of consumers. Health Progress, 68(7). pp. 61-66.

Selby, M.L., Riportela-Mueller, R., Sorenson, J.R. & Walters, C.R. (1989). Improving EPSDT use: development and application of a practice-based model for public health nursing research. In B.W. Spradley Community Health Nursing 4th ed. (1991). Philadelphia: Lippincott.

Sharfstein, S.S. (1985). Financial Incentives for Alternatives to Hospital Care. The Psychiatry Clinics of North America, 8(3). pp. 449-459.

Siderovski, D.P. & Siderovski, S.L. (1992). Evaluating program effectiveness in health education research. The Canadian Journal of Program Evaluation, 7 (2) pp43-59.

Slive, A., MacLaurin, Oakander, M. & Amundsen, J. (1995). Walk-in single sessions: a new paradigm in clinical service delivery. Journal of Systemic Therapies, 14(1). pp 3-11.

Smith, M.F. (1990). Evaluability assessment: reflections on the process. Evaluation and Program Planning, 13 pp 359-364.

Speedling, E. J., Morrison, B., Rehr, H. & Rosenberg, G. (1983). Patient satisfaction surveys: closing the gap between provider and consumer. Quality Review Bulletin, 9(8). pp. 224-228.

Stamps, P.L. & Lapriore, E.H. (1987). Measuring patient satisfaction in a community hospital. Hospital Topics, 65(5). pp. 22-26.

Statistics Canada (1989). The active health report on alcohol, tobacco and marijuana. cat# ISBN 0-662-16852-6. Statistics Canada.

Statistics Canada (1989). The active health report on fitness, nutrition and safety. cat# ISBN 0-662-16851-8. Statistics Canada.

Statistics Canada. (1993). Profile of census tracts in Edmonton, part A. cat# 95-377. Statistics Canada, pp38-43; 68-73; 74-79; 86-91; 98-103.

Stein, L.I., & Test, M.A. (1980). Alternative to mental hospital treatment. Conceptual model, treatment program and clinical evaluation. Archives of General Psychiatry, 37. pp. 392-397.

Strasser, S. & Davis, R.M. (1991). Measuring patient satisfaction for improved patient services. Ann Arbor, MI: Health Administration Press.

Sultz, H. (1991). Health policy: if you don't know where you're going, any road will take you. American Journal of Public Health, 81(4), 418-420.

The Support Network (1993). Client evaluation tool. Uncirculated, Author. Edmonton, Alberta.

Tirrul-Jones, J. (1990). A guide to the: musee heritage museum. St. Albert: St. Albert Printing.

Turner, B. (1992). Reputation: can we prevent the harm? Nursing Management, 23(3), 54-55, 58 & 60.

Weil, F. (1984). Day hospitalization as a therapeutic tool. The Psychiatric Journal of the University of Ottawa, 9(4). pp. 165-169.

Weisbrod, B.A., Test, M.A., & Stein, L.I. (1980). Alternative to mental hospital treatment II. Economic cost benefit analysis. Archives of General Psychiatry, 37. pp.400-405.

Wiersma, W. (1986). 4th ed. Research methods in education: an introduction. Toronto: Allyn & Bacon, Inc.

Wood, C. (1989). The reality of women's health. Nursing Times, 85(48) pp 54 & 55.

APPENDIX A: Description of Dependent Variables 00001 through 00024

Var00001: When you decided to seek help with your problem(s) related to mental health, who suggested to you that you go to the Sturgeon General Hospital? **(Who sent?)**

Var00002: Counting the last time you were seen at the Sturgeon General Hospital for your problem, how many times have you needed help in the past for problems related to mental health? **(Help before?)**

Var00003: For problems related to mental health, I am always able to get the help I need in my community when I think I need it. **(Local help?)**

Var00004: When I need help in dealing with a problem related to mental health, I am able to get the help I need in my community within 12 to 24 hours. **(Timely help?)**

Var00005: The Sturgeon General Hospital is the right place to offer 24 hour mental health services. **(Right place?)**

Var00006: It would be better if there were a Community Mental Health Clinic somewhere else in the community for 24 your mental health services. **(Other place?)**

Var00007: Once I got to the Sturgeon General Hospital, it was easy for me to get in touch with the mental health program staff who work with problems related to mental health. **(Easy access?)**

Var00008: The Sturgeon General Hospital mental health program staff responded to my mental health needs quickly and efficiently. **(Quick?)**

Var00009: I received the kind of help I though I needed at the hospital from the mental health program staff. **(Right help?)**

Var00010: If I need to contact the Sturgeon General Hospital staff who work with problems related to mental health again U feel I can do so easily and quickly. **(Reaccess?)**

Var00011: The mental health program staff at the hospital helped me to menage my problem successfully. **(Success?)**

Var00012: If I had a problem like this again, I would not use the Sturgeon General Hospital. **(Use again?)**

Var00013: The problem I had when I was in contact with the Sturgeon General Hospital is better now. **(Better?)**

Var00014: I think that the mental health program staff need to respond faster to people who need mental health services. **(Quicker!)**

Var00015: Over the past year, when I need help in dealing with a problem related to mental health, I am able to get the services I need within 12 to 24 hours. **(Last year?)**

Var00016: The Sturgeon General Hospital staff who work with mental health problems were helpful to me. **(Helpful!)**

Var00017: The Sturgeon General Hospital staff met my mental health needs at the time of my contact with them. **(Help rec'd!)**

Var00018: Overall, I am satisfied with the service I received form the Sturgeon General Hospital. **(Satisfied!)**

Var00019: Are you presently actively seeing a staff member who works with people who have mental health problems at one of the community agencies in St. Albert and surrounding district for ongoing help? **(More help?)**

Var00020: Two weeks before coming to the Sturgeon General Hospital for your mental health problem, had you been seen in any other mental health centre, hospital or clinic in this or any other area for a similar or the same mental health problem? **(<2weeks?)**

Var00021: Have you been seen in one of the other mental health centres, hospitals or clinics in this or any other area in the past eight weeks for a similar or the same mental health problem? **(>8weeks)**

Var00022: Have you required admission to hospital in the past eight weeks for the same mental health problem as you had when you were seen by the mental health program staff in the Emergency Department of the Sturgeon General Hospital? **(Admitted?)**

Var00023: Before coming to the Sturgeon General Hospital and being seen by the mental health program staff, were you aware that the hospital had a special program for people who have problems related to mental health? **(Know before?)**

Var00024: Would you use the Sturgeon General Hospital's special program for people with mental health related problems in the future? **(Use next time?)**

APPENDIX B

PIN # 001-A95-2

STURGEON GENERAL HOSPITAL
MENTAL HEALTH CRISIS
INTERVENTION PROGRAM
CLIENT SURVEY

Thankyou for agreeing to be in my study. The questionnaire asks questions about you and your experiences with the Sturgeon General Hospital Mental Health Crisis Intervention Program.

For the first two questions, please circle the best answer(s). There may be more than one response to the first question.

1. When you decided to seek help with your problem(s) related to mental health, who suggested to you that you go to the Sturgeon General Hospital?

a. Doctor
b. Nurse
c. Therapist
d. School
e. Police
f. Distress Line
g. Brochure
h. Newspaper, Radio, T.V
i. Family/friend
j. No one, I came on my own.

2. Counting the last time you were seen at the Sturgeon General Hospital for your problem, how many times have you needed help in the past for problems related to mental health?

a. Once
b. Twice
c. Three to five times
d. More than five times.

If your answer was " a. once", please skip to question 5.

If you circled any other answer to question 2, please continue with question 3.

The next set of questions ask for your opinion on your experiences in dealing with your problem(s) related to mental health.

<u>Please rate each statement based on whether or not you Strongly Agree; Agree; Disagree; or Strongly Disagree.</u>

Circle <u>one</u> answer only for each question.

3. For problems related to mental health, I am always able to get the help I need in my community when I think I need it:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

4. When I need help in dealing with a problem related to mental health, I am able to get the help I need in my community within twelve to twenty-four hours:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

5. The Sturgeon General Hospital is the right place to offer twenty-four hour Mental Health Services:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

6. It would be better if there were a Community Mental Health Clinic somewhere else in the community for twenty-four hour Mental Health Services:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

7. Once I got to the Sturgeon General Hospital, it was easy for me to get in touch with the Mental Health Program staff who work with problems related to mental health:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

8. The Sturgeon General Hospital Mental Health Program staff responded to my mental health needs quickly and efficiently:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

9. I received the kind of help I thought I needed at the hospital from the Mental Health Program staff:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

10. If I need to contact the Sturgeon General Hospital staff who work with problems related to mental health again I feel I can do so easily and quickly:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

11. The Mental Health Program staff at the hospital helped me to manage my problem successfully:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

12. If I had a problem like this again, I would not use the Sturgeon General Hospital:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

13. The problem I had when I was in contact with the Sturgeon General Hospital staff is better now:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

14. I think that the Mental Health Program staff need to respond faster to people who need mental health services:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

15. Over the past year, when I need help in dealing with a problem related to mental health, I am able to get the services I need within twelve to twenty-four hours:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

16. The Sturgeon General Hospital staff who work with mental health problems were helpful to me.

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

17. The Sturgeon General Hospital staff met my mental health needs at the time of my contact with them:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

18. Overall, I am satisfied with the service I received from the Sturgeon General Hospital:

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

The next six questions questions require a yes or no type of answer.

19. Are you presently actively seeing a staff member who works with people who have mental health problems at one of the community agencies or schools in St. Albert and surrounding district for ongoing help?

1. No
2. Yes

20. Two weeks before coming to the Sturgeon General Hospital for your mental health problem, had you been seen in any other mental health centre, hospital or clinic in this or any other area for a similar or the same mental health problem?

1. No
2. Yes

21. Have you been seen in one of the other mental health centres, hospitals or clinics in this or any other area in the past eight weeks for a similar or the same mental health problem?

1. No
2. Yes

22. Have you required admission to hospital in the past eight weeks for the same mental health problem as you had when you were seen by the mental Health Program staff in the Emergency Department of the Sturgeon General Hospital?

1. No
2. Yes

If yes, when was it and for how long?

23. Before coming to the Sturgeon General Hospital and being seen by the Mental Health Program staff, were you aware that the Hospital had a special program for people who have problems related to mental health?

1. Yes
2. No

24. Would you use the Sturgeon General Hospital's special program for people with mental health related problems in the future?

1. Yes
2. No

The last set of questions give background information for the study. Please write down or circle the best response.

25. Are you:

a. male
b. female

26. What is your **year** of birth?

27. What are the first three letters of your Postal Code?

28. What is the highest level of education that you have completed?

a. no schooling
b. elementary
c. junior high
d. high school
e. non-university
f. university

29. What is your annual family income category?

a. under $9,999
b. $10, 000 - $19,999
c. $20,000 - $29,999
d. $30,000 - $39,999
e. $40,000 - $49,999
f. $50,000 - $59,999
g. $60,000 - $69,999
h. $70,000 or more.

30. On a scale of 1 - 5, with one being minor and five being major, how would you describe the nature of the mental health related problem you had when you used the Sturgeon General Hospital?

Thankyou again for your time and assistance in this research.

APPENDIX C: LETTER OF INTRODUCTION

TITLE OF RESEARCH PROJECT: A PROGRAM EVALUATION OF THE STURGEON GENERAL HOSPITAL MENTAL HEALTH SERVICES CRISIS INTERVENTION PROGRAM

Wendy S. Hill - Researcher
R.N., MN Student
3rd Floor, Clinical Sciences Building
University of Alberta
Edmonton, Alberta
T6G 2G3
Telephone: 460-6300

Dr. M. Wood, Research Supervisor
Dean, Faculty of Nursing
3rd Floor, Clinical Sciences Building
University of Alberta
Edmonton, Alberta
T6G 2G3
Telephone: 492-6236

The purpose of my study is to help the St. Albert Sturgeon General Hospital find out if the new mental health program has made a difference to people who have used the hospital for this reason. In my study, you will be asked questions about experiences that you have had at the hospital and in the community. Information that you share will be kept in confidence and not shared with anyone who is not working on the study. Your name will be known only to myself.

You do not have to be in this study is you do not want to be. If you decide to be in the study, you may drop out at any time by telling me. You do not have to answer any questions or discuss any subject in the questionnaire that you do not want to.

Your name will not appear in the study. Only a code number will appear on the questionnaires. All notes and copies of the questionnaires will be kept locked up in filing cabinets in the researcher's office at the Sturgeon General Hospital, 201 Boudreau Rd., St. Albert, Alberta, T8N 6C4. These items will be kept for seven years and may be used by other people who do follow-up studies in the future.

The results of the study may be published or presented at educational or professional meetings, but your name and any material that may identify you will not be used. If you have questions or concerns about this study at any time, you can call me at the number above.

Your participation in this study will involve the following:

- Attached to this letter is a questionnaire that will take about ten to fifteen minutes to complete. A stamped, self-addressed envelope is also enclosed for you to mail the completed questionnaire back to me. Your total time in the study will be less than thirty minutes.

- PLEASE RETURN THE CONSENT FORM AND THE QUESTIONNAIRE IN THE STAMPED, SELF-ADDRESSED ENVELOPE WITHIN TWO DAYS OF

RECEIVING IT. YOU MAY TELEPHONE ME AT 460-6300 IF YOU HAVE FURTHER QUESTIONS OR DO NOT WISH TO PARTICIPATE. I WILL BE DOING A TELEPHONE FOLLOW-UP OF THOSE PEOPLE I DO NOT HEAR FROM. THE CALL WILL BE TO SEE IF PEOPLE HAVE RECEIVED BOTH THE QUESTIONNAIRE AND MY REQUEST TO PARTICIPATE IN THE STUDY.

Thankyou for your time and attention.

Wendy S. Hill, researcher

460-6300

APPENDIX D: A PROGRAM EVALUATION OF THE STURGEON GENERAL HOSPITAL MENTAL HEALTH SERVICES CRISIS INTERVENTION PROGRAM

Wendy S. Hill - Researcher
R.N., MN Student
3rd Floor, Clinical Sciences Building
University of Alberta
Edmonton, Alberta
T6G 2G3
Telephone: 460-6300

Dr. M. Wood, Research Supervisor
Dean, Faculty of Nursing
3rd Floor, Clinical Sciences Building
University of Alberta
Edmonton, Alberta
T6G 2G3
Telephone: 492-6236

CONSENT TO ACT AS A SUBJECT IN A RESEARCH PROJECT: THE STURGEON GENERAL HOSPITAL MENTAL HEALTH SERVICES CRISIS INTERVENTION PROGRAM

Consent: I declare that the above study procedures have been explained to me. Any questions have been answered to my satisfaction. I know that I may contact the person doing the research if I have further questions either now or later. I know that I do not have to take part or may drop out at any time. I know I do not have to answer any question or discuss any subject if I do not want to. I understand that records will be kept confidential and that my name will be kept anonymous. I understand that the survey will not become part of my hospital chart, nor will the staff of the hospital have any direct knowledge of my participation. I understand that no risk to my ability to use the Sturgeon General Hospital Mental Health Services Program will result from my participation. I understand that there will be no direct benefit to myself as a result of being in the study except that the results of the study will help guide the future design of the Mental Health Services Program.

Signature: _____ Date: _____

Please mail this back to me WITHIN TWO DAYS in the enclosed return envelope.

Request for Summary: (optional)

If you wish to have a summary of the study sent to you when it is finished, Please tell me and I will do so. Please tell me the address you wish me to send it to if it is different from the one above:

Name:

Address:

Postal Code:

APPENDIX E: SUBJECT FOLLOW-UP LETTER SENT TWO WEEKS AFTER ORIGINAL QUESTIONNAIRE

REMINDER

My name is Wendy Hill. I sent a questionnaire out to you about two weeks ago for a research project on mental health services at the Sturgeon General Hospital. I was wondering if you had received it and whether you were still considering helping me. I am interested in hearing from you so if you still have the questionnaire, I would appreciate it if you could complete it and send it back to me. If you have already done so, thankyou very much. If you have questions, or have misplaced the questionnaire and would like another one sent out to you, please call me at 460-6300.

Thankyou.